

Poverty in Fiji

**Changes 2002-03 to 2008-09
and policy implications**

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The views in this publication are those of the author
and not of Fiji Bureau of Statistics (which provided the raw data),
nor of AusAID (which funded the analysis and publication).

Contents

Contents	<u>page</u>
Preface by Government Statistician (FBS)	iv
Acknowledgements	v
Acronyms and glossary	vi
1. Introduction	1
2. How identify the “poor”? The Basic Needs Poverty Line Value	7
3. Key results for Incidence of Poverty or Head Count Ratios	16
4. Poverty Gaps: Guidelines for Distribution of Poverty Alleviation Resources	19
5. Income Sources: changes between 2002-03 and 2008-09 (incl. remittances).	23
6. Income Distribution Issues	31
7 Impact of household size: need for family planning	39
8 Food security	44
9 Narcotics: alcohol, tobacco and kava	57
10 Health and health insurance	64
11 Education	69
12 Employment and gender	78
13 Household assets and services	83
Annex A Food Poverty Line Baskets: need for common basket for Fiji?	101
Annex B Comparisons with World Bank (2011) methodology and results.	103
Annex C Summary of recommendations	109
References	116

Preface by Acting Government Statistician (FBS)

This Report, *Poverty in Fiji and changes between 2002-03 and 2008-09* is another important output from the 2008-09 Household Income and Expenditure Survey.

The most common use of Household Surveys on Income and Expenditure in Fiji has been to rebase the weights for the Consumer Prices Index and assist in the compilation of national accounts. However, HIES can also be used for poverty analysis. The provision of solid data on poverty is an extremely important part of the nation's attempt to discuss our development problems in an objective manner, based on hard facts rather than political priorities based on ethnicity, province or region.

National Household Income and Expenditure Surveys have the great advantage in that they extract data from a genuine representative sample of households throughout the entire economy, documenting their incomes and expenditures, far better than small samples restricted to one area or group.

This publication covers a number of policy areas relevant to poverty alleviation: identifying the poorest groups, providing objective guidelines for the sharing and distribution of poverty alleviation resources. Having hard facts on politically difficult issues such as food security, junk food and narcotic consumption, expenditure on pre-school or early childhood education, health, and household assets, etc., is invaluable for evidence based policy making.

Rather than taking an academic approach full of tables that the public have difficulty absorbing, this publication emphasizes easy-to-understand graphs with a minimum of tables. The text is written simply and may easily be used for workshops around the country amongst ordinary stakeholders in poverty, led by expert civil servants.

I am grateful that Professor Wadan Narsey is adding value to the Bureau's 2008-09 HIES with this publication, which will further assist the contribution of the Bureau to the national dialogue on poverty analysis and policies for poverty alleviation and other development policies. Putting together information at the level of detail presented in this report requires much painstaking effort. Such useful policy oriented reports also assist in justifying the high cost of conducting nationwide surveys and rewards the efforts of our field staff who gather the required data under very trying conditions.

Epeli Waqavonovono
Acting Government Statistician

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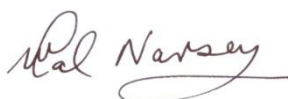
The Bureau's Household Survey Unit, under the management of Mr Epeli Waqavonovono (Chief Statistician), conducted the survey and made available the necessary data. Senior Bureau staff Mr Toga Raikoti (Principal Statistician) and Mr Serevi Baledrokadroka (Principal Statistician) of the Household Survey Unit were responsible for the professional and timely processing and editing of the data, without which this study would not have been possible.

I am grateful to the FBS staff (Mr Epeli Waqavonovono and Mr Toga Raikoti) and AusAID staff (Margaret Logavatu, Tim Gill and Sarah Goulding) who read the draft and made suggestions for improvements. Responsibility for the Final Report of course remains with the author.

The basic analysis of the data was begun during my sabbatical at the Kagoshima University Research Center for Pacific Islands (KURCPI) while still employed at The University of the South Pacific (USP). I am grateful to USP for granting me the sabbatical in the first place and to the Dean of Faculty of Business and Economics (Professor Biman Prasad) and His Excellency Yutaka Yoshizawa (Japan's Ambassador to Fiji), who facilitated my sabbatical at Kagoshima University. I am deeply grateful to the KURCPI (and its Director, Professor Shinichi Noda) for providing me with the peaceful opportunity to do this work in Kagoshima.

This Report was finalized at The Cairns Institute (James Cook University) which granted me a visiting appointment to assist in the completion of this work and other academic work of long standing. I am grateful to the Director of The Cairns Institute (Professor Hurriyet Babacan) for hosting me during the completion of this Report.

I am grateful to AusAID who funded the study.



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Acknowledgements

Acronyms and Glossary

AE	Adult Equivalent (children less than 15 years old = half an adult)
BNPL	Basic Needs Poverty Line
BNPL pAE	Basic Needs Poverty Line per Adult Equivalent
BNPL p4AE	BNPL per Household of 4 Adult Equivalents (e.g. 3 adults and 2 children)
CPI	Consumer Prices Index (usually referring to that for Fiji)
EA	Enumeration Area
ECREA	Ecumenical Centre for Research, Education and Advocacy
FBS	Fiji Bureau of Statistics
FPL	Food Poverty Line
GDP	Gross Domestic Product
Gini	The Gini Coefficient is commonly used as a measure of inequality.
hh	Household
IMF	International Monetary Fund
Incidence of Poverty (Headcount Ratio):	Percent. of Population Group below the BNPL, indicating the <u>intensity</u> of poverty.
IQ	National population quintiles based on households ranked by Income pAE
iTaukei	The term used by the current government to refer to the indigenous Fijians.
HIES	Household Income and Expenditure Survey
<i>Kerekere</i>	iTaukei custom of requesting gifts from relatives or friends.
NFPL	Non-Food Poverty Line
NGO	Non-Government Organization
NSA	Non-State Actors
nominal	Percentage change in dollar values without taking inflation into account
pa	per annum
PACER Plus	Pacific Agreement for Closer Economic Relations (between Australia/NZ and Pacific Island Countries.
pAE	per Adult Equivalent
per 4AE	per household of 4 Adult Equivalents
pc	per capita
PICTA	Pacific Islands Countries Trade Agreement
pm	per month
pw	per week
Poverty Gap	The resources required to move a household or group of households to just above the BNPL. This reflects the depth of poverty (i.e. how far below the BNPL) as well as the total numbers of people or households requiring poverty alleviation resources.
real	Percentage change in values taking price inflation into account.
RQ	Regional (rural or urban) population quintiles
SPC	Secretariat of the Pacific Community
USP	The University of the South Pacific
WB	World Bank
WTO	World Trade Organization

1 Introduction

- 1 This publication is somewhat different from the previous poverty report on Fiji (Narsey 2008)¹ using the 2002-03 Household Income and Expenditure data. Narsey (2008) was the first substantial analysis of poverty in Fiji since the 1997 Fiji Poverty Report by the UNDP and Fiji Government², and therefore necessarily had to cover the methodology and findings of that study as well as conduct the new analysis.³ Narsey (2008) updated the 1997 Food Poverty Line (FPL) basket by putting it on a sounder footing, both nutritionally and in relation to actual patterns of food consumption in Fiji. It also based the Non-Food Poverty Line (NFPL) on the actual patterns of expenditure in 2002-03.
- 2 The recently published *Report on the 2008-09 Household Income and Expenditure Survey for Fiji*, (Narsey et al, 2010) then revised the Basic Needs Poverty Line components as follows:
 - (a) The same FPL basket of foods as used for the 2008 Report, was valued at 2008-09 prices;
 - (b) The NFPL was adjusted by the percentage change in the non-Food Consumer Prices Index that is measured by the Fiji Bureau of Statistics (FBS).

The methodology of the current analysis and the standard for poverty has therefore been kept consistent with that used previously in Narsey (2008), allowing proper comparisons with the results based on the 2002-03 HIES.⁴

- 3 For stakeholders in Fiji's poverty situation, there is now greater choice in terms of methodology, analysis and results, because of a welcome recent World Bank initiative in this area.⁵ While this study uses income as the welfare criterion for both the 2002-03 and 2008-09 analysis, the World Bank 2011 study used a modified form of expenditure, and was different in a number of other ways. Given the differences in methodology between the World Bank and this study, it is to be expected that there will be some differences in the BNPL values estimated for 2008-09 and 2002-03. However, it is reassuring that the urban values are extremely close to each other (and this is of relevance to the work of the Wages Council for urban wages), although the rural values are significantly different.
- 4 While there are some differences in the poverty results obtained (WB estimates of poverty are generally higher than this study's results), the overall trends are quite consistent with each other, except for rural areas. Annex B in this Report has a brief

¹ Narsey W (2008) *The Quantitative Analysis of Poverty in Fiji*. Fiji Bureau of Statistics and The School of Economics (FBE, The University of the South Pacific).

² UNDP (1997).

³ The FBS felt that much of the data was unreliable, possibly because households were reluctant to give information, soon after the 1987 military coups.

⁴ If comparisons in the incidence of poverty between two time periods are to be useful, it is essential that the same methodology be used for the two time periods.

⁵ World Bank (2011) "Poverty Trends, Profiles and Small Area Estimation (Poverty Maps) in Republic of Fiji (2003-2009)". Social Protection Unit, Human Development Group, East Asia and the Pacific Region, WB.

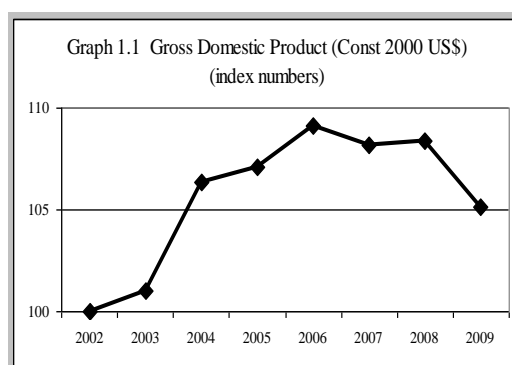
1 Introduction

discussion of the relative merits and demerits of using the different methodologies, and an assessment of some of the differences in results.

- 5 This Report covers many areas not covered by the WB Report, although there are a few common areas. The World Bank study also ventured into a new area which this Report does not address: mapping the HIES results into the 2007 Census data frame, in order to obtain “small area” estimates of poverty based on a combination of the 2008-09 HIES and the 2007 Census data. The WB analysis using the Census data should be extremely useful for poverty stakeholders who wish to more narrowly target poverty alleviation policies throughout the country.
- 6 The primary objective of this Report is to make it as “reader-friendly” as possible, and immediately usable in workshops for stakeholders in poverty, such as civil servants and NGOs.
- 7 The Report also focuses on policy areas and recommendations, on which the HIES can provide useful objective data. These include food security, education, health, family planning, and other areas. This Report is therefore written to facilitate its use as a resource document for public awareness campaigns, that can maximize the return for the large amounts of tax-payers funds used to mount the HIES throughout Fiji and process the data obtained, and foster development in difficult policy areas.
- 8 This Report may also be used as a prototype for HIES analysis in other Pacific Island countries, which are now also conducting HIES fairly regularly, with the assistance of the Secretariat of the Pacific Community.

The macroeconomic background: 2002-03 to 2008-09

- 9 To better situate the poverty results, it is important to understand the major macro-economic changes occurring over this period. Gross Domestic Product gives a fairly good indication of the health of the economy over this period. GDP was generally increasing from 2002 to 2006, following which it declined to 2009 (Graph 1).⁶

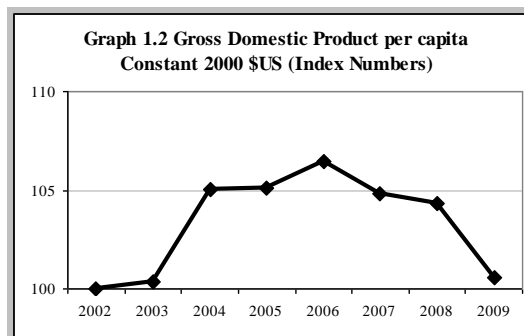


- 10 With a growing population, the GDP per capita indicates a much large decline after 2006, reverting to just above the 2002 level by 2009 (Graph 1.2). To take account of the significant remittance income flows, the chart for Gross National Income per capita in PPP current international dollars (index numbers) gives the more positive upward trend, but still turning downwards by 2009.

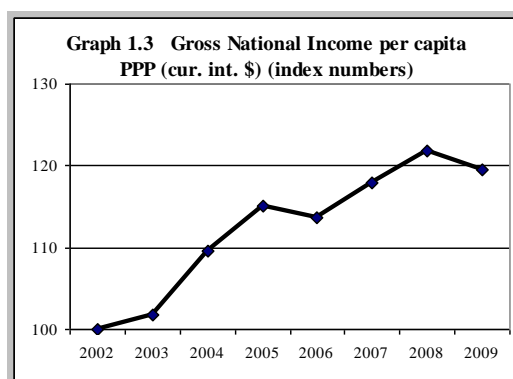
⁶ The GDP and GNI data in this section is derived from the WB database. GDP does not include Remittance Incomes.

1 Introduction

11 The difference between the more extreme downturn trend in Graph 1.2 and the more moderate downturn in Graph 1.3 is a strong reflection of the positive impact of large foreign remittances on household welfare.



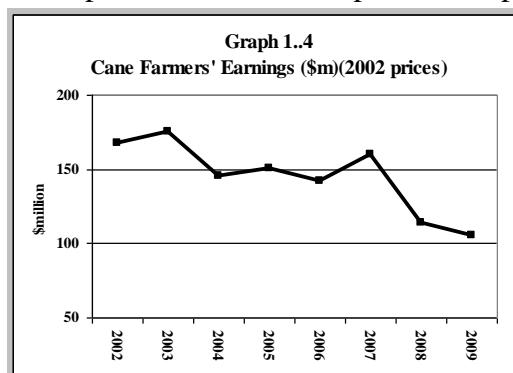
12 The upwards and downwards trends indicated here are also followed by a whole range of other indicators for Fiji, some outlined in the earlier *Preliminary Report on Poverty and Household Incomes for Fiji* (Narsey et al, 2010): Building Permits Approved and Put in Place; new vehicles registered (commercial and total); electricity usage, gross tourism earnings (in constant dollars) and Cane Farmers' Earnings (Graph 1.4).



13 Strong downward trends were shown for loans to agriculture, and sugar industry earnings over this period, reinforcing the findings of this report that poverty was indeed worsening in rural areas.⁷

14 The media very naturally wishes to know if this Report is able to draw any conclusions on the impact of the 2006 coup. The simple and honest answer is "No".

15 This Report is able to compare the results of the 2002-03 HIES with those of the 2008-09 HIES. The December 2006 coup occurred in the middle of this period between the two HIES and the survey data is therefore not able to provide any evidence on what may have been happening to poverty between 2002-03 and 2006 (when the Qarase Government was in control), and between 2006 and 2008-09 (when the Bainimarama Government has been in control).



A note on quintiles: need to understand "relative poverty"

16 Throughout this Report, there will be tables and graphs which give statistics by "quintiles" or "20% groups of population" often differentiated between the rural and urban populations, which in Fiji currently, are about the same in number.⁸

⁷ Other data are obtained from the Fiji Bureau of Statistics.

⁸ Quintiles can also comprise 20% of households, but population is preferred because it is exact. Percentages of households could have quite different percentages of populations depending on the average household sizes.

1 Introduction

- 17 There is a very important methodological reason for conducting the poverty analysis through these national and regional quintiles. As is explained in the next section (see Townsend's definition of poverty), people's perception of their poverty is very much a relative matter: i.e. in relation to others in their own society to whose living standards they can realistically aspire to, not in relation to others throughout the world, poor or rich.
- 18 There are therefore two relativities which this Report will emphasize over and over, in relation to the "big divides" that exist in Fiji. First is the huge divide between the rural people and the urban people not just in incomes, but virtually all other comforts of life, that has led to an inexorable rural:urban drift over the last five decades. Rural people aspire to the comforts of life that urban people enjoy and often take for granted. Most tables and graphs in this Report therefore differentiate by rural and urban areas. Rural development is probably the biggest and most intractable challenge facing Fiji.
- 19 Secondly, this Report tries to examine the condition of the poor not by examining them in isolation, such as the state of the poorest 20% or 30% of the population, but in relation to the "middle" classes and the "rich". The "poor" aspire to the comforts of life or the "standard of living" that the "rich" in their society or reference group enjoy. This Report therefore examines poverty characteristics through "quintiles" or 20% groups of population.⁹
- 20 It is important to be clear about the difference between "national" quintiles and "regional" quintiles. National quintiles (eg IQ1) will refer to the bottom 20% of Fiji's population in households ranked by Income per Adult Equivalent with rural and urban households all mixed up within each quintile. Usually, the bottom quintiles (IQ1, IQ2) are dominated by rural people and the top quintiles (IQ4, IQ5) are dominated by urban people.
- 21 In Fiji, the bottom 20% of the national population (IQ1) are almost certainly "poor", while the next 20% (IQ2) are on the borderline. IQ3 would be considered the middle class, IQ4 would be upper middle, while IQ5 would be the upper classes.
- 22 Regional quintiles are however quintiles identified separately for rural and urban areas, with the advantage that each quintile then refers to 20% groups within the urban or rural areas respectively. Thus where the quintile refers to rural households, RQ1 is the bottom 20% of the rural population, while RQ5 will be the top quintile for rural people. In Fiji's current situation, RQ1 and RQ2 in regional areas contain 40% of the rural population who could most probably be regarded as "poor".
- 23 Where the quintile refers to urban people, RQ1 will refer to the bottom 20% of urban population (who would generally be regarded as poor), while RQ5 will refer to the top 20% of the urban people- regarded as the elite group in Fiji.

⁹ In the previous Poverty Report (Narsey 2008), the differentiation in the 2002-03 HIES was by "deciles" or 10% groups of population. With the smaller sample size for the 2008-09 HIES, it was found that deciles did not give the "smooth" patterns that were evident in the 2002-03 HIES, especially when disaggregation had to be done for several layers of variables, which resulted in much smaller numbers of observations in each cell.

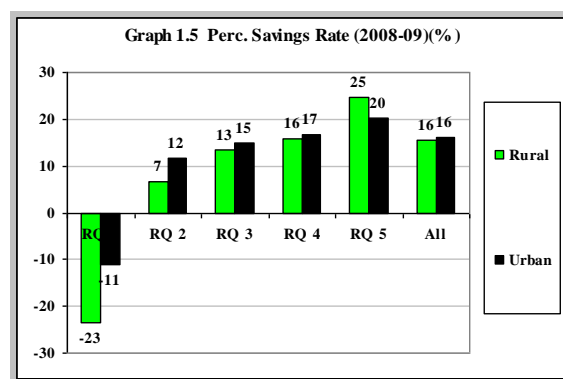
1 Introduction

24 The graphs will usually have the poorest quintiles (RQ1 or IQ1) on the left, and the richest quintiles on the right (RQ5 or IQ5), often followed by the national figure for all rural areas and urban areas, or for all Fiji. There will often be values associated with the columns or graph points. On the graphs, the rural quintiles will usually be shown in green, while the urban quintiles will be in black.

25 Thus in Graph 1.5 (which gives the Percentage Savings Rates separately for rural and urban quintiles in 2008-09), one can see that there is the expected “dis-savings” (i.e. household expenditure higher in aggregate than household income- possibly due to under-reporting of gifts received and significant *kerekere*) at the lowest quintiles with the rate for rural RQ1 being -23% while that for urban RQ1 being -11%. The columns representing negative values will be below the 0 axis, while the positive values will be above the 0 axis.

26 Graph 1.5 indicates that the savings rates then become positive for RQ 2 onwards, with the urban savings rates being higher than rural savings rates for RQ2, RQ3 and RQ4, with the relativity reversing for RQ5. Such expected patterns are not visible in HIES conducted for other Pacific countries, and suggests that the Fiji HIES data on incomes and expenditure are relatively reliable, and both may be used for poverty analysis. In aggregate (All), rural and urban households had the same savings rate of 16% in 2008-09.

27 This Report has very few tables and graphs differentiated by ethnicity, unless ethnic differences were significant or lack of significant difference was noteworthy given previous perceptions. With the data indicating that the average incomes and expenditure levels of the two major ethnic groups are converging, it is hoped that ethnic differences will be less of a political hot potato. Nevertheless, average household incomes do not bring out the significant ethnic differences that do exist especially as the iTaukei poor are often those dependent on subsistence incomes, which do not translate easily into modern goods that are enjoyed by the poor of other ethnic groups who are more in the cash economy. These ethnic differences do need to be elaborated but would require a major study on its own.



28 Readers need to be clear whether particular graphs are giving dollar levels of income or expenditure, or percentage changes in them.

Relative Merits of HIES data and 2007 Census Data

29 It is important that poverty stakeholders understand the qualitative, quantitative and coverage differences between the household survey results discussed in this report, and the information that will be coming out from the 2007 Census which is based on the targeted 100% coverage of all households in Fiji.

1 Introduction

- 30 The HIES results discussed here are based on samples of 3% in 2002-03 and an even smaller 2% sample in 2008-09. While quite accurate in many respects, the HIES sample will not give the accuracy on many development variables (such as housing, water, sewerage, electricity) that will be offered by the 2007 Census results.
- 31 On the other hand, the HIES statistics enable differentiation by income classes which are not possible from the Census data and results. It should also be noted that while the latest census give the data for the middle of 2007, the 2008-09 HIES gives more recent data up to the first half of 2009.

The coverage of the sections

- 32 A brief description of the various sections is given here together with the Government ministries which could usefully be involved in the national workshops, apart from the Ministry of Planning (including FBS) and Social Welfare.
- 33 Section 2 explains the methodology of the poverty analysis; Section 3 gives the key results for incidence of poverty (Head Count Ratio); Section 4 gives the Poverty Gaps or guidelines for the distribution of poverty alleviation resources. Section 5 focuses on changes in particular sources of incomes. Section 6 covers income distribution issues.
- 34 The remaining sections then focus on key policy areas: Section 7 on need for family planning (Health), Section 8 on Food Security (Agriculture), Section 9 on Narcotics (Health), Section 10 on health and health insurance, and Section 11 on Education (Ministry of Education).
- 35 Each section first explains the poverty measures and analytical tools, then the relevant findings, and ends with the associated policy recommendations. The focus in every section is the contrast between the rich and the poor quintiles.
- 36 Readers are reminded that a more national perspective on many of the issues discussed here and others may be found in the full *Report on the 2008-09 Household Income and Expenditure Survey for Fiji*, (Narsey et al, 2010).

2 How identify the “poor”? Basic Needs Poverty Line Value

- 37 This section first explains why poverty must be understood as a multi-dimensional problem and examined from all the perspectives, as is done in the different sections in this Report. It then makes the case for the necessity of quantitative measures such as the Basic Needs Poverty Line (BNPL) value to define the "poor" and the "non-poor". The components of the BNPL are then explained: the Food Poverty Line, the Non-Food Poverty Line, and the aggregate Basic Needs Poverty Line. Brief explanations are then given for the choice of income as the poverty criterion (rather than expenditure), and the adjustments necessary for household size.

Poverty is multi-dimensional

- 38 To ensure that stakeholders in poverty do not become totally engrossed in quantitative analysis of poverty, it has to be stressed from the beginning that poverty (like good standards of living) has multiple dimensions that contribute to persons feeling "deprived" in their lives. This requires the monitoring of many quantitative and qualitative indicators. This study therefore not only gives the simple basic quantitative assessments of poverty but also perspectives on other dimensions such as productive employment, food security, education and health, which can be usefully illuminated by the HIES data.
- 39 Amartya Sen's (1999) work "Development as Freedom" is often a starting point for current discussions of poverty. Dasgupta's (1993) *Inquiry into Wellbeing and Destitution* points to a whole range of measurable and some immeasurable conditions such as health and nutrition, sense of personal utility, political and civil liberties, resources and property rights, access to public goods, intra-household inequalities, and national taxation and subsidy systems.
- 40 Townsend (1993:36) defined poverty as "relative deprivation" where a poor person "cannot obtain, at all or sufficiently, the conditions of life – that is, the diets, amenities, standards and services – which allow them to play the roles, participate in the relationships and follow the customary behavior which is expected of them by virtue of their membership of society". Such an approach requires an analysis of deprivation not just at work, but also at home, in the neighborhood, travel, and all arenas for the fulfillment of social obligations.
- 41 Such multidimensional discussions of poverty now permeate the thinking of the international and regional organizations which set the international agenda for policy analysis, as illustrated by the United Nations' use of Millennium Development Goals (MDGs) or somewhat more narrowly, the Human Development Index (HDI).¹⁰

¹⁰ The UN 2007-08 Report may be read at the website <http://hdr.undp.org/en/reports/>.

2. How identify the poor: the Basic Needs Poverty Line

- 42 Thus MDG 1 is the eradication of extreme poverty and hunger, with two targets. Target 1 is set out to be the halving of the proportion of people who are living on incomes below US\$1 per day (or more recently, revised to US\$2 per day), between 1990 and 2015. Target 2 is to halve the proportion of people who suffer from hunger. There are also hundreds of other targets which reflect different aspects of poverty. This study does not use the US\$2 per day standard as it is far too low a standard to result in meaningful differentiation of poor and non-poor areas and people in Fiji.
- 43 The UN also gives internationally comparable data on a whole series of economic, technological, social, and political variables, which are recognized to express the state of development, underdevelopment and poverty.¹¹
- 44 The UN's Human Development Index (HDI) tries to simplify the analysis by bringing together component indices based on long and healthy life (life expectancy), state of knowledge (adult literacy and total enrolment at primary, secondary and tertiary levels), and a decent material standard of living (Gross Domestic Product per capita in PPP US dollars). The UN also has indices on poverty such as the Human Poverty Index, Gender Related Development Index, and the Gender Empowerment Index.
- 45 The World Bank approach also addresses risk, vulnerability and social capital and the need to examine the implications of policy changes for poverty through a wide-ranging set of transmission channels such as employment; prices (production, consumption, and wages); access to goods and services; assets; and transfers and taxes.¹²
- 46 Similar approaches are taken by the Asian Development Bank (ADB) which has an influential role in analyzing poverty and devising poverty reduction strategies for many Pacific Island countries.¹³ Thus ADB (2007) emphasizes the need to understand three related poverty concepts: human poverty (lack of essential human capabilities such as education and nutrition), income poverty (lack of sufficient income to meet basic needs) and absolute poverty (the degree of poverty below which the minimal requirements for survival are not being met, in food and non-food essentials). ADB (2007) also holds "vulnerability" to be important, identified as environmental risk (droughts, floods, and pests); market risk (price fluctuations, wage variability, and unemployment); political risk (changes in subsidies or prices, income transfers, and civil strife); social risk (reduction in community support and entitlements); and health risk (exposure to diseases that prevent work).

¹¹ Internationally comparable data are available on carbon dioxide emissions, crime rates, international conventions which have been signed, aid, foreign debt, etc.

¹² World Bank (2006) *A User's Guide to Poverty and Social Impact Analysis*. Poverty Reduction Group and Social Development Department..

¹³ *Poverty Impact Analysis: selected tools and applications*. Asian Development Bank, 2007. Appendix 1, Poverty Definition, Measurement, and Analysis.

2. How identify the poor: the Basic Needs Poverty Line

- 47 Readers might also need to keep in mind the quite difficult issues associated with the well-known reality that materially rich people are not necessarily “happy” and that materially poor people are not necessarily “unhappy”. This perspective has been popularized internationally by the King of Bhutan’s advocacy of the measure “Gross National Happiness” rather than “Gross National Product” as a more appropriate measure of national and human well-being.¹⁴

Need for Simple Quantitative Assessments

- 48 While the multi-dimensional approaches are vital for understanding the nature of poverty, the practical reality for poverty stakeholders is that simple quantitative assessments of poverty are the necessary first step, for a number of reasons:

(a) to assist stakeholders to better target their poverty reduction strategies nationally (whether by regions, ethnicity, gender, employment characteristics etc.) and internationally;

(b) to be able to assess how much public resources would be required to eliminate poverty or reduce it to target levels;

(c) to evaluate the effectiveness of institutions whose goal it is to help the poor;

(d) to monitor the state of poverty over time, so as to assess the degree of success or failure of past policies; and

(e) to keep the poor and poverty on the agenda, if poverty is considered a serious enough problem.

For all these objectives, having objective numbers to guide policy discussion is essential and helps to diffuse purely political and contentious considerations.

Use of wealth, income or expenditure as poverty criterion

- 49 It is common sense that the capacity of an individual to enjoy a particular standard of living is indicated not just by his/her current income or expenditure, but the overall “wealth” of the individual. Some individuals may have low flows of income and/or expenditure but possess quite high levels of wealth such as potentially productive land or property, which may not be producing flows of income that could be expected at market rates of return.
- 50 Conversely, there may be individuals in the population who possess significant amounts of wealth in the form of financial securities, or real estate, which may result in moderate flows of income, but which do not reflect adequately the degree of economic security and sense of material well-being possessed by the wealth

¹⁴ Read the discussion in the Box on p.3. of Narsey (2008).

2. How identify the poor: the Basic Needs Poverty Line

owner, nor the capacity of the household to indulge in higher expenditure by judicious liquidation of the wealth over the lifetime of the household.

- 51 This issue is an important consideration for ethnic comparisons in the Fiji context where iTaukei are generally supposed¹⁵ to have access to their *mataqali* land which may not be optimally used, while there are large proportions of Indo-Fijians who do not own land. Food poverty, for instance, should not be an issue where there is ready access to adequate land and sea resources.
- 52 Lack of access to land and sea resources would also give a perspective on income poverty of households. It is an unfortunate weakness of Fiji's HIES that there have been no questions on land ownership and access, which could have allowed this to be factored into the analysis.

Continued use of income as the poverty criterion

- 53 What should be used as the poverty criterion: income or expenditure? World Bank (2011) used a modified form of consumption expenditure which is the preferred criterion the World Bank uses in low income countries elsewhere in the world. This approach has its merits, in that consumption expenditure represents the current actual realized standard of living, and it is theorized that households typically attempt to smooth out short term fluctuations in incomes through savings, loans, and other informal social insurance opportunities (such as gifts). It is also believed that income is likely to be under-reported, especially when some incomes (such as from informal activities) are difficult to observe.
- 54 Narsey (2008) previously used income as the criterion for several reasons. First, in Fiji, different groups of individuals seemed to choose to spend more or less of their same income because of systemic preferences for saving, leaving larger inheritances. Others on similar incomes may have higher consumption levels even funded by borrowings, with little reference to expected future incomes. Both the 2002-03 HIES and the 2008-09 HIES data indicate that the sub-groups which are differentiated in this study for the analysis of poverty, do have significant differences in propensities to save, and hence consume. Expenditure is therefore not as good an indicator of potential standard of living as income.
- 55 Consumption expenditure also has measurement problems, such as the necessary inclusion of large expenditures for ad hoc events such as weddings and funerals, and durables. The latter raises a tricky problem of the appropriate rate of amortization of durable goods whose purchase prices and dates may not be known. WB (2011) therefore left out expenditures on durable goods¹⁶ as well as on hospitalization.¹⁷ However, had the households not made these expenditures

¹⁵ Many Fijian communities do not own land, and much of the best native lands are leased out.

¹⁶ The WB rationalisation was to "to avoid introducing noise into the poverty estimates".

¹⁷ The WB rationalisation was that health expenditures are a "regrettable necessity" that incorrectly registers an increase in welfare when loss of welfare from being sick cannot be estimated.

2. How identify the poor: the Basic Needs Poverty Line

on durable good, some proportion of the equivalent amounts would have gone towards other expenditure, which would make the household appear “richer”, with expenditure as the poverty criterion.

- 56 For the above reasons, this study will continue to use household income as the major criterion for poverty analysis, although the use of expenditure also has its merits. Annex B indicates that the results using unadjusted expenditure are similar to those using income as the criterion, except that the expenditure criterion results in much larger numbers for both the incidence of poverty (Head Count Ratios) and guidelines for poverty alleviation resources (Poverty Gaps). Using expenditure as the poverty criterion exaggerates the size of the poverty problem, not exactly required in Fiji's context.

Basics of Quantitative Analysis

- 57 International comparisons of poverty are usually made with “Absolute Standards” such as income or expenditure of US\$1 or US\$2 per day as a standard minimum required to satisfy the basic needs of one adult person. However, for most developing countries which are not extremely poor, such standards are too low and not useful for identifying the poor for policy purposes.
- 58 The basic quantitative analysis of poverty is therefore usually conducted internationally as follows:
- (a) Some criterion is chosen for ranking households in poverty: income or expenditure.
 - (b) The poverty criterion is adjusted for household size usually by dividing by the number of "adult equivalents" i.e. the criterion becomes Expenditure per Adult Equivalent or Income per Adult Equivalent (there are many methodologies).
 - (c) There is a Food Poverty Line (FPL) value (many methodologies)
 - (d) There is a Non-Food Poverty Line (NFPL) value (many methodologies)
 - (e) The FPL is added to the NFPL to obtain the Basic Needs Poverty Line (BNPL); or the jump is made by using "multipliers" on the FPL to obtain the BNPL value.
 - (f) Households which are below the BNPL standard are then assessed to be “poor” and the proportion of total population below the BNPL is then the “incidence of poverty” or the “Head Count Ratio”.¹⁸

¹⁸ It is more useful to use percentages of the population and not households, because different households have different numbers of persons in them, and the average household size may change between two different time periods.

2. How identify the poor: the Basic Needs Poverty Line

- (g) Other statistics may then be derived such as the Poverty Gaps (resources required to make a household “non-poor”, and guidelines for distribution of poverty alleviation resources.

Adjusting for Household Size

- 59 Both this study and the World Bank use the same “Equivalence Scale” to adjust the household welfare criterion for household size, as has been used by previous studies for Fiji and elsewhere in the Pacific. The welfare criterion (income or expenditure) is divided by the number of “Adult Equivalents” in the household: each child aged 0 to 14 is treated as half an adult, and over 14 as one adult. See Narsey (2008, p.14) for an explanation for this procedure. There are other equivalence formulae which allow for some economies of scale in household expenditures.

Estimating the Values for Food Poverty Line

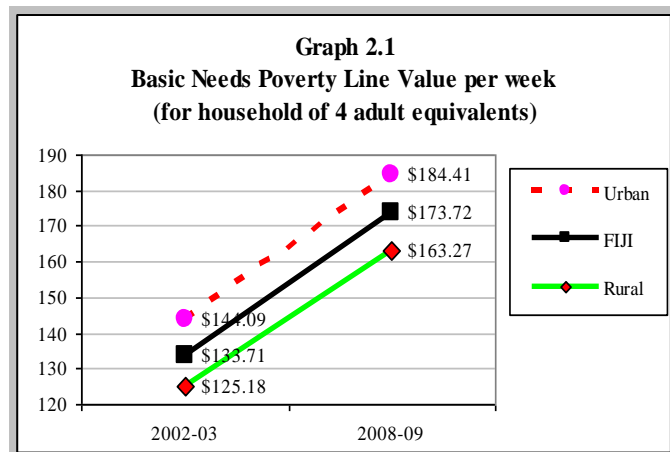
- 60 Narsey (2008) estimated the FPL values for 2002-03 by using an actual basic basket of foods as follows:
- (a) the actual expenditure on major food items consumed by the third quintile in 2002-03 was used by the Fiji Food and Nutrition Centre to devise a 2-week menu of food for a family of 5 (comprising 2 adults, 1 teenager and 2 children below age 15) i.e. 4 Adult Equivalents (here given as Annex A). There are only some 41 items in total altogether, with each group only having about 35 items priced for their FPL: about 8 items of carbohydrates, 7 items of fish and meat (including eggs), 3 items of Fats and Oils, 10 vegetables, 2 fruits, and 6 condiments.
 - (b) These menu items were then priced to give the total FPL values for rural and urban iTaukei and urban and rural Indo-Fijians and divided by 4 to give the FPL per AE.
 - (c) The nutrient values of these baskets of foods are given in Annex A.
 - (d) No adjustment was made up or down to achieve the supposed target of 2100 Kcals per day. The menu is quite basic, different from what would be consumed by either the affluent or the totally poverty stricken.¹⁹
- 61 These same four baskets of foods were also used for 2008-09 and priced at 2008-09 prices, but the ethnic values were then merged by using the population weights to obtain separate urban and rural FPL values. The rationale for this merging was that poverty gaps (on which are based guidelines for poverty alleviation resources), cannot be estimated with reference to ethnicity without creating

¹⁹ Of course, there has to be much subjectivity about this. Such concerns can only be decided by ‘social consensus’ amongst all the stakeholders.

2. How identify the poor: the Basic Needs Poverty Line

political problems in implementation. It may be noted that the WB approach to the FPL which derived one single value used for rural and urban Fiji, without reference to ethnic or any other differences in diets, has the great advantage of simplicity and application.

62 It may be noted however, that over the last three years, there have been serious disagreements with employers over the values used for the FPL and BNPL by the Wages Councils in Fiji. Employers have argued that the BNPL values (and presumably the FPL values) are "too high".²⁰ We show below that the urban BNPL values derived here and with separate methodology by the World Bank are virtually the same for 2002-03 and within 2% for 2008-09.²¹ The workers to whom Wages Councils apply are largely the urban workers.



63 The Food Poverty Line Basket method used in Narsey (2008) has a transparent and common sense explanation as to what it actually costs households to buy certain quantities of foods accepted as necessary for decent nutrition in the Fiji context. Stakeholders can “see” exactly why the value of the FPL has to be increased and by how much.

64 This study accepts however, that having separate Food Poverty Line baskets for different ethnic groups and for different areas makes the analysis unnecessarily complex for ordinary stakeholders. It may be politically useful to just have one Food Poverty Line Basket for the whole country, which can then be priced over time, and changed as food consumption patterns change over the long term. This is the subject of one of the recommendations in this report.

Estimating the Values for Non-Food Poverty Line

65 The approach taken by Narsey (2011) for estimating the NFPL values has been to take the values used for the NFPL derived from the third decile of the 2002-03 data, and then adjust it by the non-Food components of the Fiji CPI, over the same period to 2008-09.

²⁰ Employers have argued that the BNPL should not be used as the guideline for the minimum wage for one worker on the grounds that most households have more than one income earner.

²¹ The WB values for the rural BNPL are somewhat lower than this study's values.

2. How identify the poor: the Basic Needs Poverty Line

- 66 Thus not only is the FPL adjusted by the actual change in prices, but so also is the NFPL standard used in the analysis of the 2002-03 data, adjusted by the inflation of non-food items between the two HIES.

The Resulting Values for Food Poverty Lines and Basic Needs Poverty Lines

- 67 Table 2.1 gives the resulting estimated values for the FPL and BNPL for 2002-03 and 2008-09.

- 68 While the urban:rural differences in the values for the FPL are quite insignificant, the differences in the Non-Food Poverty Lines²² are such as to result in a moderately higher urban value for the BNPL- by 15% in 2002-03, with the gap reducing slightly to 13% in 2008-09.

Table 2.1 Estim. Values for FPL and BNPL pAE pw				
	Rural	Urban	FIJI	%(U-R)/R
Food Poverty Line				
2002	15.99	15.84	15.92	-1
2008	21.76	21.28	21.52	-2
% Change	36	34		
Basic Needs Poverty Lines				
2002	31.30	36.02	33.43	15
2008	40.82	46.10	43.43	13
% Change	30	28		

- 69 In order to keep the analysis of poverty simple for stakeholders, we focus only on the Basic Needs Poverty Lines for 2008-09, compared with what was used for the 2002-03 data.

- 70 The BNPL for a household of 4 Adult Equivalents (or 3 adults and 2 children) was \$173.72 for Fiji in 2008-09, some \$10 dollars higher (\$184) for urban households and some \$10 lower for rural households.

Table 2.2 Urban BNPL values per hour and per year (WB and Narsey) for 2008-09 (for a household of 4 adult equivalents)		
	World Bank	Narsey
Per hour	\$4.52	\$4.61
Per Year	\$9396	\$9590

- 71 For the convenience of those working with guidelines for minimum wages in Fiji, Table 2.2 gives the Urban BNPL values for a household of 4 adult equivalents corresponding to the BNPL values estimated by WB and by this study.

- 72 It may be seen that both these sets of BNPL values, derived from quite different methodologies, are quite close to each other, strengthening their validity.

- 73 These are relatively high values, compared to the current wage rates in industries such as garments and textiles. Nevertheless, it should be pointed out that these are values for 2008-09, and to maintain their real values for 2012, they would need to be adjusted for the considerable inflation since then. It is unfortunate, however, that in general wages in the private sector have not kept pace with inflation because of the stagnation in the Fiji economy since 2006.

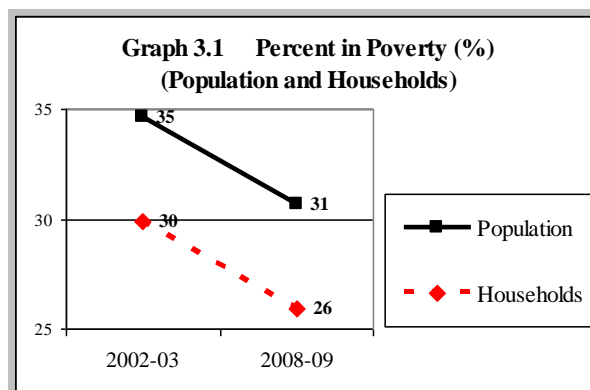
²² These are easily estimated by subtracting the FPL from the BNPL values.

2. How identify the poor: the Basic Needs Poverty Line

- 74 *Recommendation 2.1: Stakeholders in poverty in Fiji, discuss the usefulness of developing one Food Poverty Line basket of foods for all Fiji, satisfying the basic nutritional requirements, without reference to ethnicity or area, noting that there are significant ethnic differences in consumption of basic foods.*
- 75 *Recommendation 2.2: Stakeholders discuss and approve the methodology and resulting values of the BNPL, for 2008-09.*
- 76 *Recommendation 2.3: Stakeholders request FBS to adjust the BNPL values from 2008-09 to 2012, using the methodology in this Report, and that used by the World Bank. These values may then be used as minimum and maximum guidelines by the Wages Councils and other stakeholders in poverty.*

3 Results for Incidence of Poverty or Head Count Ratios

77 The “incidence of poverty” alternatively known as the “Head Count Ratio” is defined as the “Percentage of the Population Below the Basic Needs Poverty Line” (BNPL). It is a reflection of the intensity of poverty in the groups concerned.

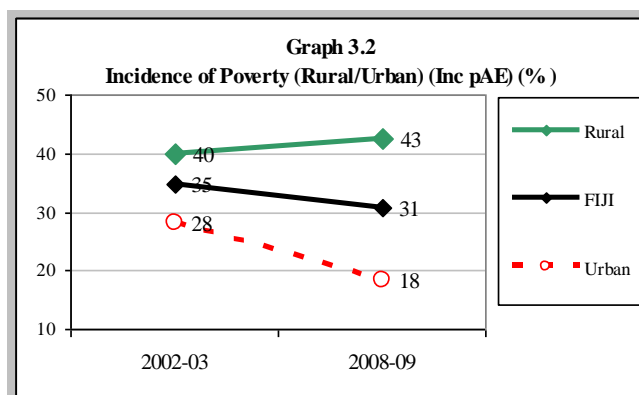


78 This section gives the values for Fiji as a whole, and differentiated by rural and urban areas, divisions and ethnicity. High values for the incidence of poverty would indicate areas needing urgent attention. Note however, that guidelines for the amounts and shares of poverty alleviation resources are given in Section 4 below.

79 Between the two HIES, the percentage of households in poverty declined from 30% to 26%, while the percentage of the population in the households declined from 35% to 31%. The percentage of population in poverty is usually higher than the percentage of households in poverty because poor households are usually larger on average than non-poor households (Graph 3.1).

Table 3.1 Incidence of Poverty (Rural/Urban)			
	2002-03	2008-09	% Ch.
Rural	40	43	6
Urban	28	18	-34
All	35	31	-11

80 Section 1 had indicated that while there was economic growth from 2002-03 to 2006, there was a downturn thereafter. It may be confidently surmised that the national incidence of poverty around 2006 was probably lower than the rates indicated in 2008-09, certainly for urban areas.



81 Graph 3.2 and Table 3.1 indicate that the reduction in poverty was not uniform throughout the country: the urban areas saw a dramatic reduction in poverty from 28% to 19% (a reduction of 34%), while poverty in rural areas increased by a modest 6% from 40% to 43%. This is in keeping with the indicators presented in Section 1, on the decline in the sugar industry, and declining proportions and amounts of loans to agriculture.

3. Key Results for the Incidence of Poverty or Head Count Ratios

82 This result for rural areas is different from that derived by the WB study that poverty in rural areas remained the same (at around 44%).

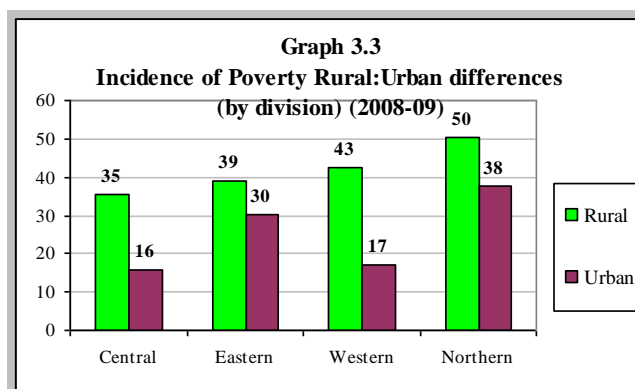
83 All the divisions, except the Eastern Division²³, saw some reduction of poverty (Table 3.2). The Northern Division, however, remained the most poor of all the divisions, with some 47% of the occupants below the BNPL.

84 Disaggregating by rural and urban continues the earlier conclusion that all the rural divisions have much higher incidence of poverty than their corresponding urban households (Graph 3.3).

Table 3.2 Incidence of Poverty (by Division)			
Division	2002	2008	% Ch.
Central	26	21	-17
Eastern	35	37	4
Northern	53	47	-11
Western	36	32	-11
FIJI	35	31	-11

85 Rural Northern had the highest rate of poverty (50%), while urban Northern had the highest rate of urban poverty (47%).

86 With the overall estimated rural Northern population remaining the same as in 2002-03, while the number of Poor seems to have declined, one possible explanation may be that the poorest in the rural Northern division have migrated out to urban areas, both in Vanua Levu and Viti Levu.



87 It is also a possibility that the remaining Indo-Fijians have better access to resources as well as marketing opportunities through networking with Northern migrants to Viti Levu.²⁴ Other statistics in this Report indicate that there may also have been an increase in agricultural output in the northern division, with some reduction in rural crime.²⁵

Table 3.3 Incidence of Poverty (ethnicity)			
Ethnicity	2002	2008	% Ch.
iTaukei	35	31	-10
Indo-F	36	32	-11
Other	24	25	4
All	35	31	-10

88 Ethnic differences in poverty have always been of political relevance in Fiji, although the data here suggests that it should not be of any great significance in the future. Table 3.3 indicates that the two major ethnic groups had almost the same incidence of poverty in 2002-03 (around 35%) and in 2008-

²³ Throughout this Report, the results for the Eastern Division which compare the 2002-03 situation with the 2008-09 are to be treated with great caution as it seems that many households from the Eastern Division included in the 2002-03 HIES sample were classified with the Central Division (personal communication from FBS HIES Unit).

²⁴ Personal communication from Mr Baljeet Singh (Lecturer in Economics, USP)

²⁵ FBS field staff gave anecdotal evidence that there are some agricultural and other projects which are beginning to bear fruit in the Northern division.

3. Key Results for the Incidence of Poverty or Head Count Ratios

09 (around 31%) and the same reductions in poverty of around -10%. The “Others” group saw a slight increase in poverty.

- 89 No doubt a reflection of the continuing decline in population through emigration and lower fertility rates of the Indo-Fijian population, the iTaukei increased their share of the Poor from 55% to 60% while the Indo-Fijian share declined from 42% to 35%. This has a direct bearing on the guidelines for ethnic shares of poverty alleviation resources (see next section).

- 90 The current trends indicate that with higher and improving income opportunities in urban areas, the rural:urban drift has continued its inexorable advance. Failure to improve the living standards and household incomes in rural areas, together with a continuation of poverty alleviation measures in the highly visible and easily accessible urban areas, will only serve to accelerate the rural:urban drift, increase pressures for basic services in urban areas, while further worsening rural poverty.

Table 3.4 Ethnic shares of the Poor			
Ethnicity	2002	2008	% Ch.
iTaukei	55	60	9
Indo-F	42	35	-16
Other	3	5	53
All	100	100	

- 91 It is of the utmost importance that development strategies for Fiji and public sector infrastructure investment programs focus their efforts on rural development, including the appropriate support for cash income generating agriculture.

- 92 It is important that there is national consensus on the three recommendations presented here so that government and donor decision making in line with these recommendations can proceed without being side-tracked by vested lobby groups. Allocation of development and poverty alleviation resources are nearly always “zero-sum” games- more for one group usually means less for others. Politically powerful groups often have a vested interest in maximizing their own shares, and can easily lead to destructive politics which can undermine investor confidence and economic growth so much that all groups lose.

- 93 ***Recommendation 3.1 Participants agree that the rural households face the highest incidence of poverty, compared to urban households.***

- 94 ***Recommendation 3.2 Participants agree that the Northern Division, with the highest incidence of poverty, justifies the need for special attention, such as the "Look North" policy.***

- 95 ***Recommendation 3.3 Participants agree that there are no significant ethnic differences in the incidence of poverty and that poverty alleviation measures do not require ethnic differentiation.***

4. Poverty Gaps: Guidelines for Distribution of Poverty Alleviation Resources

4 Poverty Gaps and Guidelines for Poverty Alleviation Resources

- 96 Of interest to poverty stakeholders is the amount of poverty alleviation resources that are needed to lift each Poor household to just above the Basic Needs Poverty Line. This depends on two variables: how far below the BNPL each household is; and how many poor households there are with their different poverty gaps. Thus if the BNPL is \$41.15 per Adult Equivalent per week, and a particular household has an Income pAE pw of say \$40, then the poverty gap is \$1.15 per Adult Equivalent per week. The total resources required to shift this household up to the BNPL would be:

$$(\$1.15) * (\text{the size of household in AEs}) * 52.$$

- 97 Aggregating these amounts for all the poor households (using the HIES weights for each household) in the country then gives a rough estimate of the total amount of poverty alleviation resources that the country would theoretically require, if all the poor households in that group were to be given a cash transfer to lift them to the BNPL. The relative size of these values also offer a very objective guideline to poverty stakeholders on what each group's share of poverty alleviation resources would be, out of any amount made available nationally. Of course, the aggregate amounts may be compared with what Government actually spends on the Poor households for poverty alleviation.

- 98 Table 4.1 presents the result that between the 2002-03 and the 2008-09 HIES, the value of the Poverty Gap rose by 26% from \$120 million to \$152 million, in nominal terms. However, this increase was more than compensated by the 40% increase in GDP (current prices) and 41% increase in Government Expenditure (current prices).

Table 4.1 Poverty Gaps (\$m) and Percentages			
	2002-03	2008-09	% Ch.
	\$ million		
Poverty Gap	120	152	26
GDP (cur.pr.)	3465	4861	40
Govt.Expend.	1065	1499	41
	Poverty Gap as Perc. of		
GDP	3.5	3.1	-10
Govt. Expend.	11.3	10.2	-10

- 99 Hence the Poverty Gap as a percentage of GDP fell by 10% from 3.5% to 3.1%. In normal times, this amount would represent the annual growth rate of Fiji's GDP in a good year and could be considered to be a manageable challenge. However, Fiji's average real growth rate of GDP over the last ten years has unfortunately been much less than that and finding this amount of resources for poverty alleviation is therefore even harder, ameliorated only by the generosity of donors.

Table 4.2 Poverty Gaps (\$m) and shares (%)				
	2002	2008	% Ch.	% Real Ch.
Rural (\$m)	74	108	46	15
Urban (\$m)	47	44	-4	-25
All (\$m)	120	152	27	0
Rural Share (%)	61	71		

4. Poverty Gaps: Guidelines for Distribution of Poverty Alleviation Resources

- 100 The Poverty Gap as a percentage of Government Expenditure also fell by 10% from 11.3% to 10.2%. While not a large percentage in normal times when Government Revenues are buoyant, these percentages pose a serious challenge when the economy is not performing well, and Government revenues are stagnant or declining in real terms.
- 101 While the total amount of poverty alleviation resources required for all Fiji increased by 27% in nominal terms, and 0% in real terms (allowing for 27.1% inflation in the CPI) that required for Rural Fiji increased by 15% while that required for Urban Fiji decreased by 25% (Table 4.2).
- 102 With the incidence of poverty increasing relatively more in rural areas, it is not surprising that the rural areas also deserve a much larger share of poverty alleviation resources, increasing from 61% of the total in 2002-03 to 71% in 2008-09 (last row Table 4.2).
- 103 It is natural that urban poverty is more visible to poverty stakeholders, being relatively concentrated in urban locations (such as squatter settlements), in contrast to rural poverty which is dispersed widely in rural settlements (where the bulk of the poor Indo-Fijians live) and remote villages (where the poorest iTaukei live). However, the statistics in Table 4.2 drive home the message that poverty alleviation measures by Government, NSA/NGOs, donor agencies and international organizations, must focus on rural areas far more than on urban areas.
- 104 Here, poverty stakeholders face a real dilemma. While urban poverty is much easier to tackle, if poverty alleviation measures and resources continue to be successfully focused on urban areas, then rural:urban migration will be exacerbated even more than indicated by the current trends, squatter settlements will expand, and urban poverty worsened. The cycle will then not only continue, but become a larger problem. It is crucial that rural poverty be addressed in order to reduce the "push" factors for rural:urban migration.
- 105 It is not just a matter of allocation of poverty alleviation resources. It is unfortunately also the case that other public sector services such as education (schools, teachers, libraries, computer laboratories science laboratories), health (hospitals, medical personnel, medicines,) and infrastructure (roads, electricity, telecommunications, water and sewerage) are also all concentrated in urban areas. Economic growth and incomes are also concentrated in urban areas. Poverty alleviation in the rural areas requires more than just transfers of poverty alleviation resources. There is an urgent need for genuine coherent integrated rural development strategies that have the capacity to halt or reverse the rural:urban drift. That is yet to occur.
- 106 There are some positive signs however that development aid is increasing and there may be increased economic growth if the mineral sector projects come to

4. Poverty Gaps: Guidelines for Distribution of Poverty Alleviation Resources

fruition.²⁶ In such a climate, it may be easier to allocate more development funds to rural areas, without reducing the amounts that currently flow to urban areas, thus mitigating the "zero-sum" argument.

- 107 Table 4.3 indicates that for 2008-09, the Western Division would have required some 42% of all the poverty alleviation resources, with 33% due to Rural Western households. This is a considerable worsening from the situation in 2002-03, and is no doubt a reflection of the severe decline in the sugar industry.

Table 4.3 Divisional Share of Poverty Alleviation Resources (2008-09)			
Division	Rural	Urban	All
Central	10	14	24
Eastern	4	1	6
Northern	23	6	28
Western	33	8	42
All	71	29	100

- 108 It should be noted that the Northern Division is deserving of a higher percentage of total poverty alleviation resources (28%) than the Central Division (24%). Within the Northern Division, of the 28% of total resources, 23% would need to be devoted to rural households.²⁷

- 109 Table 4.4 gives the guidelines for ethnic shares of poverty alleviation resources indicated by the 2008-09 HIES data, with some 57% to iTaukei and 38% to Indo-Fijians.

Table 4.4 Indicated Ethnic shares of Poverty Alleviation Resources (2008-09)			
Ethnicity	Rural	Urban	All
iTaukei	44	13	57
Indo-F	24	14	38
Other	2	2	5
All	71	29	100

- 110 It should be noted that these are virtually the population relativities at the time of the 2007 Census: poverty alleviation resources, if allocated purely according to need, would end up being in the same proportions as the ethnic shares of population.

- 111 Politicians need to take heed of this very fundamental conclusion arising out of the objective HIES data that poverty alleviation measures cannot be justified by reference to ethnic categories.

- 112 Again, not a surprise, the largest shares of all poverty alleviation resources (some 71%) should accrue to the Rural Groups with only 29% indicated for the urban areas.

- 113 ***Recommendation 4.1: Assess the percentage of total government expenditure allocated directly for poverty alleviation purposes and compare with the target of 10%.***

²⁶ For instance, AusAID plans to double its aid to Fiji over the next two years.

²⁷ Changes in Poverty Gap guidelines between 2002-03 and 2008-09 are not given by divisions as there were some problems with the Bureau's classification of Eastern division households in 2002-03.

4. Poverty Gaps: Guidelines for Distribution of Poverty Alleviation Resources

- 114** *Recommendation 4.2: In all national allocations of poverty alleviation resources, and broad capital development initiatives, a rough target should be to allocate roughly 70% to rural areas.*
- 115** *Recommendation 4.3: Stakeholders attempt to examine what proportion of government's annual recurrent and capital development budget is allocated to rural areas*
- 116** *Recommendation 4.4: Stakeholders request Planning Office to examine what proportion of government's annual recurrent and capital development budget is allocated to the divisions and compare with the proportions recommended here.*
- 117** *Recommendation 4.5: Stakeholders agree that poverty alleviation resources are to be allocated purely on the basis of need, not ethnicity.*

5 Income Sources: changes 2002-03 to 2008-09

118	The most effective and sustainable method to tackle poverty over the long term is to improve the income earning capacities of the population groups who are vulnerable to poverty.	Table 5.1 Total Incomes from Income Sources (\$m)			
			2002-03	2008-09	% Ch. R % Ch.
		Income sources	\$ million		Percentages
		Wages Permanent	851	1344	58 24
		Wages Casual	228	294	29 2
		<i>Agricultural Business</i>	197	216	10 -14
		<i>Commercial Business</i>	145	126	-14 -32
		<i>Subsistence/HC/HP</i>	151	158	4 -18
		All Remittances/Gifts	84	259	206 141
		Other Income	342	652	91 50
		Total Household Income	1998	3048	53 20

119 Average household incomes do not give a good indication of the vulnerability of the different groups, since the HIES aggregates the incomes of everyone in the household.

120	Nevertheless, the income <u>sources</u> and <u>associated values</u> are recorded and give a good perspective on changes to productive incomes between the HIES, even though the number of persons earning those incomes are not on the HIES database.	Income source	2002	2008	% Ch.
		Wages Permanent	43	44	4
		<i>Wages Casual</i>	<i>11</i>	<i>10</i>	<i>-15</i>
		<i>Agricultural Business</i>	<i>10</i>	<i>7</i>	<i>-28</i>
		<i>Commercial Business</i>	<i>7</i>	<i>4</i>	<i>-43</i>
		<i>Subsistence/HC/HP</i>	<i>8</i>	<i>5</i>	<i>-32</i>
		Remittance Abroad	2	4	134
		Remittance Local	1	1	39
		Gifts Received	2	4	99
		Other Income	17	21	25
121	Table 5.1 gives the total values for 2002-03 and 2008-09 and the nominal and real changes, adjusted for the CPI inflation of 27%. Paid	Total Income	100	100	
		Production sectors	25	16	-34

121 Table 5.1 gives the total values for 2002-03 and 2008-09 and the nominal and real changes, adjusted for the CPI inflation of 27%. Paid employment comprised around 55% of all household income, with 44% in 2008-09 going to Wages Permanent (employees with secure employment and conditions). By 2008-09, Agricultural Business, Commercial Business and Subsistence only comprised 16%.

122 Table 5.2 gives the total shares of the incomes sources in Total Household Income, and the percentage changes between the two HIES.

123 While Total Household Income increased in real terms by 20%, there were significant differences in the changes in the components.

5. Income Sources: changes 2002-03 to 2008-09

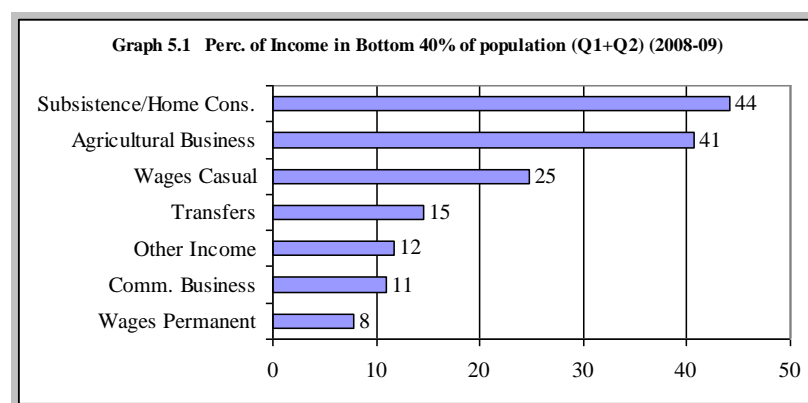
124 The really worrying signs were that all the real production sectors (Agricultural Business, Commercial Business²⁸ and Subsistence Income) showed large declines in real values (grey shades). Overall, the worrying result is that in aggregate, production sectors saw an extremely large 34% decline from 25% to 16% share of total household incomes (Table 5.2 bottom row).

125 Transfers (Foreign and Local Remittances, and Gifts) showed a large increase in aggregate of 141%, while that of Other Incomes indicated a large increase also of 50%.

126 In Wages and Salaries, “Wages Permanent” managed a real increase of 24% during this period, while Casual Wages showed a decline of 2%. Note that Wages Permanent refer largely to salaried employees in the formal sector- government, statutory organization and the private companies. Wages Casual refer to employees mostly in the non-unionized sectors, covered largely by Wages Councils.

Income source	IQ 1	IQ 2	IQ 3	IQ 4	IQ 5	FIJI
Subsistence/HC/HP	20	24	23	21	11	100
Wages Casual	9	16	22	24	29	100
Wages Permanent	2	6	12	22	59	100
Agric. Business	17	24	25	20	14	100
Comm. Business	3	7	13	22	54	100
Foreign Remittances	4	6	10	13	67	100
Local Remittances	8	10	15	24	42	100
Gifts Received	7	11	16	23	43	100
Oth Income	5	7	10	17	61	100

127 The fact that Casual Wages also saw a large decline in its share while that of Permanent Wages increased slightly, emphasizes the vulnerability of



the informal sector during economic down-turns, and the relative security of formal sector salaries and wages, which are able to withstand economic downturns for a number of reasons.

128 Table 5.3 indicates which quintiles particular incomes sources fall into. Interestingly, some 67% of Foreign Remittances, and around 42% of Local Remittances and Gifts are received by households in the top quintile. It would be

²⁸ The overall values and shares of incomes from Commercial Business appear to be very much on the low side and need cross-referencing from FIRCA. However, note that "Commercial Business" in HIES refers largely to the informal sector or home based business.

5. Income Sources: changes 2002-03 to 2008-09

an interesting exercise to examine the state of poverty of households, if these income sources were excluded.²⁹

129 Graph 5.1 indicates more clearly the income sources which are most associated with households in poverty. The most vulnerable with some 44% of their income falling in households in the bottom 40% of the population, was income from subsistence. This was closely followed by income from commercial agriculture, of which 41% fell in the bottom 40% of Fiji's population.

130 Income from Casual Wages was next in vulnerability, with some 25% falling in the Bottom 2 quintiles.

131 The converse of these problems is that only 8% of income from Permanent Wages, and only 10% from Commercial Business fell into the bottom 2 quintiles, suggesting that these two sources of income are not prone to poverty pressures.

132 Subsistence income (or Home Production) rarely gets the attention it deserves from governments' assistance programs.

133 Table 5.4 indicates the sources of income and their distribution into the national quintiles, with the light cells indicating those which have declined in real terms between 2002-03 and 2008-09.

Data	IQ 1	IQ 2	IQ 3	IQ 4	IQ 5	FIJI
Subsistence	5	-3	-8	-18	-57	-18
Wages Casual	-17	-9	-2	5	17	2
Wages Permanent	11	46	28	26	22	24
Agric. Business	42	24	-3	-28	-54	-14
Comm. Business	21	6	8	-16	-45	-32
Foreign Remittances	200	81	88	42	310	181
Local Remittances	24	5	45	78	116	67
Gifts Received	205	173	227	193	88	139
Oth Inc	-5	2	10	27	90	50
Total	12	17	14	15	26	20
All Transfers	139	94	125	103	175	141

134 Thus Subsistence Income increased only slightly (by 5%) in national Quintile 1 while declining most seriously in all the higher quintiles.

135 Casual Wages declined significantly in the lowest three quintiles indicating the vulnerability of the poorest wage workers in the informal sector, while Quintile 1 saw a real increase of 17%. The increase in the higher quintiles managed to ensure a small overall increase of 2% altogether.

136 In contrast, Permanent Wages saw large real increases for all quintiles suggesting a relative insulation from the economic pressures over this period. In this context, there is a real danger that the across the board salary increases recently granted to the public sector is precisely for those classified in the "Permanent Wages"

²⁹ The World Bank study conducted a useful and interesting an econometric exercise on this issue.

5. Income Sources: changes 2002-03 to 2008-09

- category. Such increases may simply feed into to increased monetary demand, which, without a corresponding increase in real output, will lead to upward pressure on inflation.
- 137 The salary increases have also been relatively higher for the security services, introducing a long term bias in the salary structure which will be difficult to reverse in future years.
- 138 It is also quite likely that the government salary increases are unlikely to be matched by the private sector, especially for those in the informal sector. It has been the recent experience that efforts by Wages Councils to increase Casual Wages have been thwarted by employers pointing to the stagnant economy failing to improve the capacity of employers to pay sustainable higher wages.
- 139 Agricultural Business and Commercial Business saw large decreases in the upper quintiles while paradoxically, there were moderate increases in the bottom two quintiles.
- 140 All the transfers (Foreign and Local Remittances, and Gifts) saw large increases at all quintile levels, with foreign remittances in particular seeing large increases at the lowest quintiles and at the highest quintiles. It must be remembered however, that the large percentage increases in the lowest quintiles are on very small flows in 2002-03.
- 141 Commercial agriculture has been a clear focus of all governments' development efforts over the last three decades, yet the numbers do not indicate a success story. While efforts to encourage production have succeeded, these have been undermined by poor arrangements for marketing, which have not been sustained over time. The typical cycle has been government incentives and assistance with seeds, pesticides, fertilizer and equipment leading to increased production, with lack of markets and adequate prices leading to gluts and price collapses to levels which do not even cover the cost of harvesting and transport to the outlets. The end of the cycle is farmers typically giving up on the particular crops, until the next effort is made. What seems to be the pattern is that where particular crops have been targeted, all is well while the state subsidies prevail, but once removed, the activity ceases.
- 142 Some parts of the country may see increased economic activity due to mineral resource exploration and mining. It is important for the Ministry of Agriculture to ensure that surrounding areas do not see a downturn in agriculture as human resources may be drawn into the minerals sector. Should the latter happen, then domestic food production will further give way to imported foods. It is important that the "Dutch Disease" or the "Resource Curse" does not further worsen the situation of agriculture in Fiji, as is likely if the Ministry of Agriculture does not take pre-emptive measures.

5. Income Sources: changes 2002-03 to 2008-09

- 143 It will also be important that the Ministry of Finance ensure that a part of the tax and royalty revenues from mineral resources development are earmarked for the agricultural development of the areas surrounding the mines, with linkages being developed if efficiently possible.

- 144 While there are investments taking place in primary resource extraction, the economy as a whole, is not seeing the robust levels of investment that are needed to foster sustained economic growth of 5% or more.³⁰ It is clear that the economic stagnation is caused by lack of broad-ranging investment, due primarily to lack of investor confidence, because of the political and legal uncertainties.

Table 5.5 Foreign Remittances (2008-09) (\$m and %)			
Income	Rural	Urban	ALL
Quintiles	\$ million		
IQ 1	3	1	4
IQ 2	4	4	7
IQ 3	5	7	11
IQ 4	5	10	15
IQ 5	4	73	78
FIJI	21	95	116
Hor %	18	82	100

Foreign Remittances

- 145 The importance of Remittances to Fiji's macro economy is now well recognized. Reserve Bank data indicates that remittances have been increasing quite dramatically and around 2005 and 2006 were more than \$300 million. This is now well in excess of the sugar industry earnings, and possibly as much as the retained earnings from Tourism. The amounts seem to have reduced in the last few years because of the global financial crisis but are still officially recorded at over \$250 million. The real flows are likely to be more as much does not come through the official channels.

Table 5.6 Vertical percentages of Foreign Remittances (2008-09)			
	Rural	Urban	All
IQ 1	14	1	4
IQ 2	18	4	6
IQ 3	23	7	10
IQ 4	24	11	13
IQ 5	21	77	67
FIJI	100	100	100

- 146 Table 5.5 indicates some unusual features of the Remittance flows.³¹ The bulk of the \$116 million recorded for Fiji went to the urban households (some 82%) and only 18% to the rural households.

Table 5.7 The incidence of poverty Without Foreign Remittances			
Area	IOP base	IOP w/o For.Rem.	% Ch.
2002-03			
Rural	40.0	40.8	2
Urban	28.1	29.9	6
FIJI	34.6	35.9	4
2008-09			
Rural	42.5	43.9	3
Urban	18.5	20.7	12
	30.6	32.4	6

- 147 Contrary to the general idea that remittances are sent back to assist the poor, Table 5.6 indicates that only 4% end up in Quintile 1, and 6% in Quintile 2, ie 10% in the bottom 40% of the population. Of the flows going to

³⁰ The Investment to GDP ratio needs to be higher than 25% for reasonable growth to occur.

³¹ These quintiles are national quintiles- ie quintile 1 is the bottom 20 % of Fiji's population (mostly in the rural areas).

5. Income Sources: changes 2002-03 to 2008-09

urban households, some 77% ended up in the top quintile, and only 5% in the bottom 2 quintiles (Table 5.6).

148 However, the flows going to the rural households were far more poverty alleviating in that some 32% did end up in households which were in the bottom 40% of the country. Nevertheless, the facts indicate that the bulk of the remittances, do not go to the poorest households in the country.

149 The WB Report on Poverty Trends in Fiji concluded from their econometric model that every \$100 of foreign remittances reduced poverty by 1.5% in urban areas and 1% in rural areas. Here we ask what would be the incidence of poverty without the remittance flows? Table 5.7 confirms the results hinted by Table 5.6. In 2002-03 there would have been a 4% increase in the Head Count Ratio or the Incidence of Poverty, consisting of a 2% in rural areas, and 6% in urban areas.

150 In 2008-09, the increases in the incidence of poverty would have been slightly larger: 3% in rural areas and 12% in urban areas, 6% in total. Quite clearly, the urban poor households are benefiting much more from foreign remittances than rural households.

Table 5.8 Local Remittances and Gifts (2008-09) (\$m and %)			
Income	Rural	Urban	ALL
Quintiles	\$ million		
IQ 1	8	3	11
IQ 2	11	4	15
IQ 3	14	8	22
IQ 4	17	17	34
IQ 5	19	42	61
FIJI	70	73	143
Hor %	49	51	100

151 The rural:urban relativities here are much larger than that indicated by the World Bank analysis. One possible explanation is that the WB analysis used expenditure as the criterion for poverty, and hence their econometric analysis model would have to model the impact of a reduction of remittance incomes on expenditure. Because our analysis here uses income as the criterion to assess poverty, the actual income less the foreign remittances give an immediate indication of the impact on poverty.

152 It should also be noted that since the bulk of the remittances are going to the upper quintiles, they are quite likely to equally boost savings (being effectively “windfall” incomes) as they are to boost expenditure, which is where the WB methodology would register the impact on poverty.

153 Regardless of where the remittance earnings end up, poverty stakeholders should note that (a) this is a large sum comparable to the earnings from the sugar industry; (b) it is all net foreign exchange earnings; (c) this is an industry which has not required any input from tax-payers or government (although recently there have been official attempts to reduce the cost of remitting to Fiji); (d) like any other export industry, there is theoretically no limit to the amounts that may be earned abroad through the export of labor services, and requires no local input except the quality of human resources enhanced through education.

5. Income Sources: changes 2002-03 to 2008-09

- 154 Stakeholders need to ensure that it gets far more national attention than it is currently getting. The analysis of the remittance data in the 2007 Census, and the public dissemination of the results, should be an immediate priority.

Local Remittances and Gifts

- 155 Table 5.8 indicates that for 2008-09, the total amount of Local Remittances and Gifts was not only considerably higher (at \$143 million) than the recorded Foreign Remittances (\$119 million), but was spread quite equally between the rural households and urban households. The rural distribution was also more even, and may be expected to have a greater impact on poverty as a total of \$70 million was redistributed to the rural areas compared to only \$21 million of Foreign Remittances.

Table 5.9 Vertical percentages of Local Remittances and Gifts (2008-09)			
	Rural	Urban	All
IQ 1	12	4	8
IQ 2	16	6	11
IQ 3	21	11	16
IQ 4	24	23	23
IQ 5	28	57	43
FIJI	100	100	100

- 156 Table 5.9 therefore indicates also that the quintile distribution within the rural areas was also not as skewed as that for Foreign Remittances. The lowest two national quintiles received 20% of all Local Remittances and Gifts, higher than was received from Foreign Remittances (10%).

- 157 It is also useful to ask what would have been the Incidence of Poverty or Head Count Ratio without the Local Remittances and Gifts. Table 5.10 indicates that for 2002-03, the impact on the incidence of poverty would have been roughly the same (increasing by 5%) in rural and urban areas, and nationally, slightly greater impact than foreign remittances (4%).

Table 5.10 Incidence of Poverty Without Local Remittances and Gifts			
Area	IOP/ base	w/o LR + G	% Ch.
2002-03			
Rural	40.0	41.8	5
Urban	28.1	29.5	5
FIJI	34.6	36.2	5
2008-09			
Rural	42.5	48.3	13
Urban	18.5	20.2	10
	30.6	34.4	12

- 158 However, in 2008-09, the impact on rural poverty would have been a much higher 13%, compared to the 10% in urban areas, and the overall impact would have been a much larger 12% (compared to the 6% impact of the foreign remittances).

- 159 Overall, therefore, Local Remittances and Gifts have a much higher aggregate impact on poverty than Foreign Remittances, and had a far greater impact on Rural poverty in 2008-09, where the incidence of poverty is much higher and in greater need of alleviation. While foreign remittances continue to be the subject of greater research, it is anomalous that there is relatively little attention paid to the flows of local remittances and gifts and their nature.

5. Income Sources: changes 2002-03 to 2008-09

160 For instance it is not clear to what extent the flows recorded as "local" remittances and gifts, may have originated as foreign remittances and gifts, being passed on to other households. This information would be extremely useful given the impact on poverty alleviation is not only greater, but the flows are from domestic sources.

161 *Recommendation 5.1: Stakeholders foster strategies to enhance the income generation for*

- (a) subsistence incomes*
- (b) commercial agriculture*
- (c) Casual Wages under regulation by Wages Councils*
- (d) Small family run self-employment enterprises.*

162 *Recommendation 5.2: Stakeholders in public sector salaries and wages note the need for income control when the economy is in serious down-turn, so as to even the burdens on all stakeholders.*

163 *Recommendation 5.3: Stakeholders discuss the causes of economic stagnation-namely the lack of investor confidence.*

164 *Recommendation 5.4 Stakeholders continue to foster strategies that increase the flows of remittance incomes to Fiji, by fostering labor mobility schemes within PICTA and especially the new opportunities opening up in Papua New Guinea.*

165 *Recommendation 5.5 Stakeholders continue to foster strategies that increase the flows of remittance incomes to Fiji, by fostering labor mobility schemes as an essential minimum content of PACER Plus with Australia and NZ.*

166 *Recommendation 5.6 Tertiary training institutions be encouraged to increase the output of skills in demand in international labor markets, and trainees recognize that they also need to share in the costs of their training, which will be generously rewarded by the higher incomes available abroad.*

167 *Recommendation 5.7 Stakeholders move for further research into the nature of internal gifts and remittance and the possibilities of encouraging its strengthening through taxation policies.*

168 *Recommendation 5.8 Stakeholders urge the Reserve Bank policies to further reduce the cost of transmitting remittance funds to and within Fiji.*

169 *Recommendation 5.9 Stakeholders urge the tertiary education institutions to organize a national symposium on all aspects of the remittance economy which impacts on Fiji's development.*

6 Income Distribution Issues³²

- 170 All societies are interested to know whether income distribution is getting better or worse: i.e. are the “rich getting richer” relative to the “poor” or is the opposite happening? Usually, if income distribution is worsening, governments do consider policy measures, such as changes in welfare payments to the poor, income and corporate taxes at the upper and lower ends, or fiscal and excise duties differentiated by essential and luxury goods, to try to improve income distribution.
- 171 In Fiji, the distribution of income between urban and rural areas, and also between the major ethnic groups are extremely important issues, the latter for political reasons, with major political parties historically being associated with major ethnic communities.
- 172 With the data now available for two household surveys conducted with the same methodology, it is now possible to examine the trends in Fiji during this survey period. As in estimating the incidence of poverty, the households are first ranked by Income per Adult Equivalent.
- 173 Income distribution may be examined from many different angles. At the aggregate level, there is the Gini Coefficient which ranges from 0 (perfect distribution) to 1 (totally unequal distribution). The technical explanation for this coefficient is somewhat complex but may be googled by those interested. To simplify, the Gini would be 0 if all individuals had exactly the same share of total income. The Gini becomes larger than 0 (but less than 1) when proportions of the population have less than their population share of the total income and the others have more than their population share. At the extreme (when the Gini is equal to 1), one person would have all the income and the others have nothing.³³
- 174 The Gini is usually estimated for the distribution of income, but may also be done for expenditure or wealth.³⁴
- 175 Note: if the Gini Coefficient rises between two periods, income distribution is worsening. If the Gini Coefficient decreases, then income distribution is improving. A higher Gini for one group indicates that it has a more uneven income distribution than the group that has a lower Gini value.
- 176 The Gini may be calculated for shares of households in the total income, or the shares of population in total income. In this Report, shares of population is

³² IQ will imply that the quintiles are from the national distribution; RIQ will imply that they are from separate regional distributions for urban and rural areas.

³³ Changes in the Gini can be ambiguous as different combinations of gains and losses in income shares by low and high income groups, could lead to same change in Gini. For that reason this Report tries to give the actual changes in income or income shares at different quintile groups.

³⁴ Expenditure

6. Income Distribution Issues

preferred because “households” may have quite different numbers of occupants and so the same percentages of households could refer to a higher or lower percentage of population. Gini coefficients using percentages of population are therefore more accurate measures for comparisons across groups, and over time.

177 A more simple statistic that reflects the gap between the rich and the poor is the ratio of the income received by the top 20% of the population (Q5) compared to that received by the Bottom 20% of the population (Q1) (here referred in the tables as Q5:Q1). However, this ratio also has weaknesses in that it could remain the same if changes at the top were matched by changes at the bottom, while it says nothing about how the middle quintiles are changing.

178 Both sets of measures can however hide what is happening at each quintile (20% group) level hence analysis by quintile level is always necessary to get a better picture and this is done throughout this section.

179 Table 6.1 indicates that the population Gini deteriorated by 5.5% from 0.416 to 0.439. The Household Gini deteriorated from 0.341 to 0.359, a worsening of 5.3%.

Table 6.1 Gini Coefficients (2002-03, 2008-09)			
	2002-03	2008-09	% Ch.
Population Gini	0.416	0.439	5.5
Household Gini	0.341	0.359	5.3

180 For Fiji in aggregate therefore, income distribution worsened between 2002-03 and 2008-09 by around 5%. But the tables below indicate two different processes at work in rural and urban areas.

181 A large factor in the uneven distribution of incomes at the national level, is the gap between the urban households as a group, and rural households as a group.

182 Within each area (rural and urban on their own) the distributions are far more even with much lower values for the Gini Coefficient (Table 6.2).

Table 6.2 Gini Coefficients (Rural/Urban)			
	2002-03	2008-09	% Ch.
Rural			
Households	0.126	0.115	-9
Population	0.197	0.194	-2
Urban			
Households	0.138	0.149	8
Population	0.222	0.245	11

183 For Rural areas, the Gini were not only quite low but declined from 2002-03 to 2008-09- by 9% for Household Gini, and 2% for Population Gini.

Paradoxically, while the incidence of poverty was increasing in rural areas, the income distribution was improving slightly. Normally, any improvement in the Gini Coefficient is “good news”. The hope of course, is that it is the poor who are gaining ground on the rich. But this is not the case in rural Fiji, as shown below.

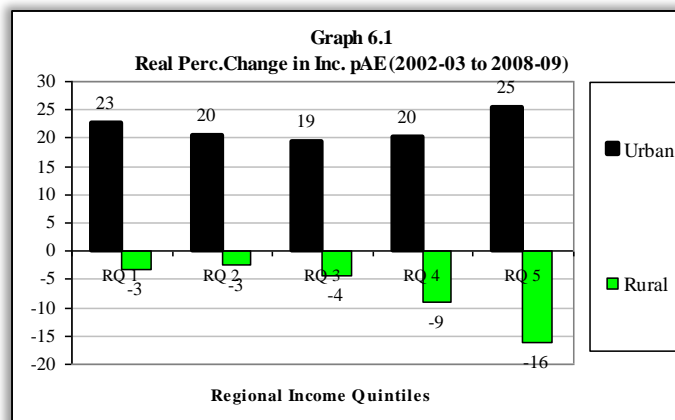
184 For Urban areas, the Ginis were expectedly higher than for Rural areas but indicated a significant worsening of income distribution between 2002-03 and 2008-09: increasing by 8% for Household Gini, and 11% for Population Gini. i.e.

6. Income Distribution Issues

income distribution in urban areas was worsening while that in rural areas was improving. This is also clarified below.

Income Changes by Quintiles

185 To understand better the complexities of changes in income distribution at the national level, it is useful to examine the patterns of income changes separately in rural and urban areas, which can be different from the national aggregate indicators.



186 Graph 6.1 shows the quite unusual patterns of real income changes. All urban quintiles showed improvements in Income per Adult Equivalent, with the highest quintile gaining the most (by 25%) and the lowest quintile gaining more (23%) than the three middle quintiles.

187 However, in the rural areas, the top two quintiles have seen the largest deterioration in their real incomes, with the top 20% in rural areas seeing a large -16% deterioration in its Income per AE, with the second highest quintile seeing a -9% deterioration. This is no doubt related to the significant decline in the sugar industry and may also be related to the worsening of agricultural incomes in general.

188 It seems therefore that the improvement in income distribution statistics in rural areas is not due to the “poor becoming richer”, but the “rich becoming poorer”.

189 The poorest rural quintiles saw a much smaller deterioration of around -3% in Income per AE, giving some credence to the view that subsistence people in rural areas tend to be cushioned from crises in the modern sector, whether due to international factors (such as the global financial crisis) or domestic factors such as political instability.

	2002-03	2008-09	% Ch.
RQ 1	6.4	6.7	5
RQ 2	10.7	11.8	10
RQ 3	15.3	15.9	4
RQ 4	22.0	22.2	1
RQ 5	45.6	43.3	-5
	100	100	
Q5:Q1	7.1	6.4	-10

190 Table 6.3 elaborates on the impact of Table 6.2: all the bottom four quintiles (i.e. the bottom 80% of the rural people) increased their shares of total rural income, with the larger gains going to the middle quintiles. The top quintile (top 20%) lost

6. Income Distribution Issues

5% in their shares of total income. This is a result of all rural people losing ground, but the top quintile losing more ground than others.

191 From this table also it is clear that the rural areas do not represent the situation of the “rural poor getting poorer” but the “rural rich getting poorer”. The ratio between the Top 20% and the Bottom 20% reduced from 7.1 to 6.4. Thus while the Rural Gini showed a slight improvement in falling by -2%, the picture is quite complex.

Table 6.4 Urban Income Shares and Changes			
Urban	2002-03	2008-09	% Ch.
RQ 1	5.9	5.9	-1
RQ 2	10.2	10.1	-1
RQ 3	14.7	14.2	-3
RQ 4	21.1	20.6	-3
RQ 5	48.1	49.3	2
	100	100	
Q5:Q1	8.1	8.4	4

192 Table 6.4 describing the changes taking place in urban shares of income, has a somewhat opposite picture of the rural changes. All the bottom four quintiles (i.e. bottom 80% of the urban population) saw small reductions in their shares of income, while the top quintile saw a small 2% improvement in its share.

193 The ratio of the share of the Top Quintile to that of the Bottom Quintile increased slightly from 8.1 to 8.4. The overall picture was captured by the Urban Gini increasing slightly (as given in Table 6.2).

Table 6.5 Income Shares (all Fiji)			
FIJI	2002-03	2008-09	% Ch.
IQ 1	5.8	5.4	-7
IQ 2	10.0	9.8	-3
IQ 3	14.7	14.0	-5
IQ 4	21.5	20.6	-4
IQ 5	47.9	50.2	5
All	100	100	
Q5:Q1	8.2	9.3	13

194 Again, there is a lesson to be learnt here. While the Gini showed a deterioration of income distribution in urban areas, the same picture as shown by Table 6.4, the earlier Graph 6.1 had clearly shown that the lowest urban quintiles did gain in terms of standards of living as indicated by moderate increases in Income per Adult Equivalent.

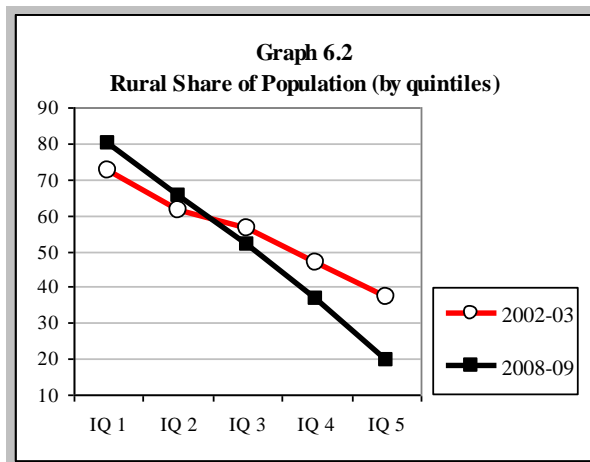
195 This illustrates clearly the dangers of relying solely on Gini Coefficients as indicators of the welfare of the poor. This is a debate which has gone on in many other countries, most recently in China, where income distribution has clearly been “worsening” while the poorest in China have seen large improvements in their standards of living. Many development economists suggest that more important than improvements in Gini coefficients is whether there are actual improvements taking place in the condition of the poor.³⁵

Table 6.6 Rural Shares of Quintile Populations			
	2002-03	2008-09	% Ch.
IQ 1	73	80	10
IQ 2	61	65	6
IQ 3	56	52	-8
IQ 4	47	37	-22
IQ 5	37	19	-48
All	55	51	-8

³⁵ This is not to imply that for the poor to gain, there must be inequalities in income distribution. This is a totally different argument.

6. Income Distribution Issues

196 With a better understanding of the finer changes taking place in rural and urban Fiji, Table 6.5 therefore gives the aggregate picture for all Fiji, with national quintiles. One can see that the Bottom four quintiles (IQ1 to IQ4) all saw reductions of their share of Total Household Income, while only the Top Quintile (IQ5) saw a small increase in its share. As expected, the ratio of Q5:Q1 increased from 8.2 to 9.3. The overall Gini coefficient in Table 5.1 had of course, increased from 0.416 to 0.439 (Table 6.2).



197 Table 6.6 gives the overall shares of rural people at the different quintile levels. While the total rural share had declined from 55% in 2002-03 to 51% in 2008-09, the shares at the lower quintiles were much higher and increasing: for instance, at Q1, the rural share increased from 73% to 80% ; at Q2, increased from 61% to 65%.

198 Conversely, the rural shares at Q3, Q4 and Q5 all decreased. At Q5, the rural share decreased by a large 48% from 37% to 19%, again reinforcing the impoverishment of the rural upper income groups between the two HIES.

Ethnic issues in Income Distribution

199 For political stability in Fiji, it is crucial to understand the full facts regarding the ethnic distribution of incomes, as this has been a political “hot potato” for decades, and a source of political agitation and instability.

	iTaukei	Indo-F	Other	FIJI
IQ 1	62	33	5	100
IQ 2	61	35	3	100
IQ 3	59	37	4	100
IQ 4	63	32	5	100
IQ 5	52	36	12	100
All	59	35	6	100

200 First, what is the ethnic population composition at each quintile level? Is any one ethnic group more heavily concentrated in the lower quintiles than the other, relative to their aggregate population shares?

201 Table 6.7 indicates that with the ethnic shares of total population being around 59%, 35% and 6% respectively for iTaukei, Indo-Fijians and Others (last row Table 6.7), the ethnic shares of the population at the different quintile levels are around the same proportions, except at the highest quintile.

6. Income Distribution Issues

202 At Quintile 5, while the iTaukei share declines slightly to 52%, it is the share of Others which rises to 12%. The Indo-Fijian share is uniform throughout the quintiles at around 35%.

203 How have the incomes at different quintile levels been changing for the different ethnic groups, separately considered for rural and urban areas, remembering that the former has seen a down-turn while the latter has done better between the two HIES?

204 Table 6.8 indicates that the downturn in the rural sector affected the major ethnic groups equally badly, as is evident from the prevalence of the negative values for all ethnic groups.

205 For all groups also, there were larger decreases at the higher quintiles for all ethnic groups and smaller decreases at the lower quintiles. While in aggregate, both major ethnic groups appear to have suffered equally in the rural areas, rural Indo-Fijians in the bottom quintile suffered a relatively larger (-11%) reduction in Income pAE, suggesting a particularly vulnerable group in poverty. Also, rural Indo-Fijians in the top quintile suffered the largest decline in the rural areas, of 22%.

Table 6.8 Perc. Changes in Income pAE (by ethnicity)				
	iTaukei	Indo-F	Others	All
Rural				
RQ 1	1	-11	3	-3
RQ 2	-3	-1	-2	-3
RQ 3	-4	-5	-3	-4
RQ 4	-10	-8	0	-9
RQ 5	-14	-22	-11	-16
Rural	-11	-10	-4	-10
Urban				
RQ 1	23	22	27	23
RQ 2	20	21	22	20
RQ 3	19	21	13	19
RQ 4	20	20	19	20
RQ 5	25	11	49	25
Urban	17	18	54	23

206 In urban areas, there were conversely large real increases in incomes per adult equivalent for all ethnic groups at all quintile levels - as evidenced by the large positive numbers in the lower half of the table.

207 The "Others" in Quintile 5 enjoyed a particularly large (49%) real improvement in incomes per Adult Equivalent. Both these sets of anomalies deserve further research.

208 Within each ethnic group, there have been different patterns of changes to income distribution. For iTaukei, income distribution has worsened in this inter-HIES period- by 6.5% according to the Household Gini, and by 2.3% according to the Population Gini (Table 6.9).

209 Indo-Fijians on the other hand have seen some ambiguous changes: a small improvement in income distribution-of some 4.3% by the Household Gini but a small worsening (of 0.4%) by the Population Gini.

6. Income Distribution Issues

210 Comparing the two major ethnic groups, therefore, the Indo-Fijians generally had a more unequal distribution of incomes than iTaukei largely because of their greater predominance in the business sector.

Table 6.9 Gini Coefficients (by ethnicity)			
	2002-03	2008-09	% Ch.
Household Gini			
iTaukei	0.311	0.331	6.5
Indo-F	0.360	0.345	-4.3
Diff.(I-F)/F	16	4	
Population Gini			
iTaukei	0.394	0.403	2.3
Indo-F	0.427	0.429	0.4
Diff.(I-iT)/iT	9	7	

211 However, the difference between the two major ethnic groups has reduced between 2002-03 and 2008-09: by Household Gini, from a 16% difference in 2002-03 to a mere 4% in 2008-09.

212 According to the population Gini, the difference reduced from 9% to 7%.

213 The above results indicate that the iTaukei and Indo-Fijian income distribution patterns are converging.

Redistribution policies

214 All societies have “redistribution” mechanisms which attempt to move resources from those that “have” to those that “have not”. The usual mechanisms are taxation policies and welfare distribution payments to the needy.

215 The World Bank 2011 Report has a large section devoted to the efficiency of Fiji welfare payments which readers should refer to. This will not be duplicated here.

216 One area which needs further attention however, is taxation policies. The main redistribution tools are direct income taxes which usually tend to have higher tax rates on higher incomes, and higher import duties on items more consumed by upper income persons: ie considered to be “progressive” taxes by economists.

217 Working in the opposite direction are sales taxes such as Value Added Tax (VAT) which, being a tax on consumption, tends to hit the poorer people relatively harder. VAT is generally considered to be “regressive” by economists.

218 In both these areas, there have been substantial policy changes in Fiji in recent years. Income taxes, both personal and corporate taxes have been substantially reduced, with the most recent being the large reductions declared in the 2012 Budget from 30% to 20%. The regressive VAT, on the other hand, has been significantly increased from 12.5% to 15% hitting all consumers, but the poorer households relatively more.

219 With welfare payments generally not changing much over the last decade, the taxation changes will have had substantial impact on overall income distribution

6. Income Distribution Issues

in Fiji. There is an urgent need for solid research to examine the impact of these taxation changes on distribution measures.

- 220** *Recommendation 6.1: Urgent attention be given to sponsoring a study to examine the impact on economic growth and income distribution of recent policy changes in taxation- personal and corporate taxes, fiscal, customs and excise duties, and VAT.*
- 221** *Recommendation 6.2 Poverty stakeholders examine whether there is a need to introduce taxation policies with the specific objective of improving income distribution, without harming the prospects for economic growth.*

7 Impact of Household Size: need for family planning

222 One policy area which has become somewhat neglected in recent years is the need for family planning as a strategy for improving standards of living. This section tries to examine whether the HIES data is able to reveal any significant development benefits of families having fewer children, as indicated by the numbers of children in the household.

223 This section will investigate the association of the incidence of poverty with household size (and specifically its different components) and the impact of the numbers of children on education and health expenditures.

224 Of course, the number of children a couple have is very much a personal choice. However, it can also legitimately be a policy matter for the state and tax-payers, because it is the state and taxpayers who have to provide for children's education and training, health and other public benefits.

225 Academics have long debated whether the improvements in standards of living followed the reductions in fertility rate, or whether the fertility rates fell, after standards of living rose.

226 Whatever the causality, the world over, the average size of families and number of children born to women (reflected in the statistic "fertility rate") has been falling. In some countries, such as in China, it was also as a result of direct state policy-the "one child" policy - enforced for the last three decades (although that policy is being relaxed somewhat now). The beneficial impact on China is easily seen by contrasting with India, for instance in the number of children needing to be supported in primary and secondary schools over a period of time³⁶ although there are some long-term adverse labor supply impacts on China that demographers are also warning about.

Table 7.1 Child Dependency Ratio (0 to 14) as % of (15 -64)			
Ethnicity	2002-03	2008-09	% Ch
iTaukei	60	54	-11
Indo-F	38	31	-18
Other	49	56	15
FIJI	50	45	-9
%(iT-I)/I	59	74	24

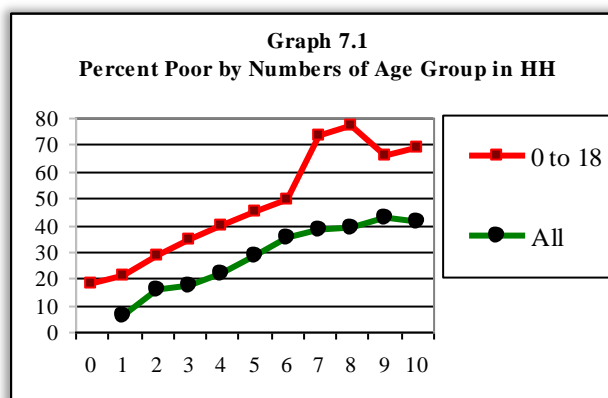
227 In Fiji, there has been a remarkable decrease in the fertility rate of Indo-Fijian women, falling below replacement levels in the last decade. The iTaukei fertility rate has also been falling but far more

Table 7.2 Average Household Size			
Ethnicity	2002-03	2008-09	% Ch.
iTaukei	5.4	5.1	-5
Indo-F	4.4	4.0	-9
Other	4.9	4.7	-4
FIJI	4.9	4.7	-5
%(iT-I)/I	21	27	

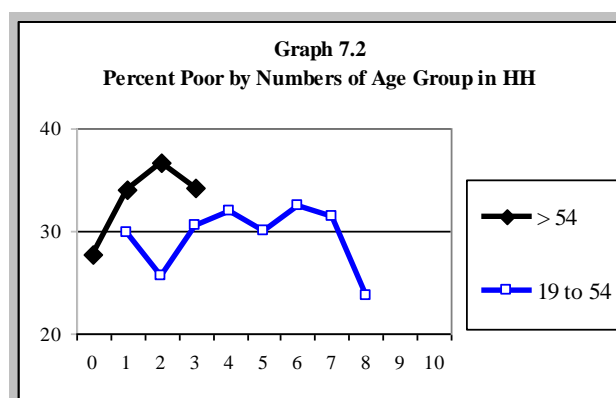
³⁶ Between 1970 and 2010, China's population of those between ages 0 and 14 decreased by 28 million while India's increased by 133 million. The differential impact on funds required and burdens on taxpayers to educate these extra children may be easily understood.

7. Impact of Household Size

slowly. Table 7.1 indicates that the iTaukei Child Dependency Ratio is not only significantly larger than the Indo-Fijian value, but within a five year period, the difference has grown from 59% in 2002-03 to 74% in 2008-09.



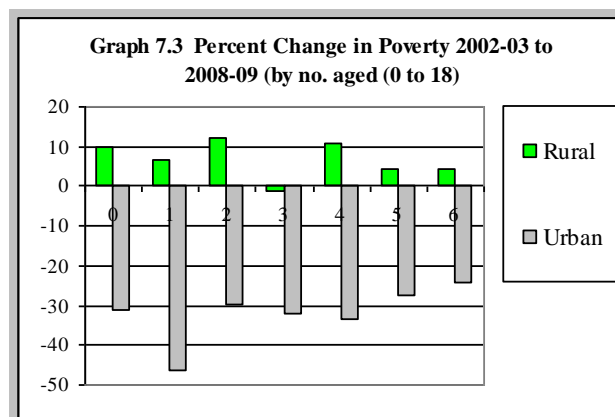
228 The average size of iTaukei families is therefore significantly larger (by one) than Indo-Fijian with the margin growing from 21% in 2002-03 to 27% in 2008-09 (Table 7.2).



229 The HIES data clearly shows the economic advantages for the smaller Indo-Fijian families with household incomes very similar to indigenous Fijian incomes, allowing Indo-Fijian families much higher material standards of living. This can be seen in expenditures on education, health, and other discretionary items such as mobile phones.

230 World Bank (2011) has a table which shows that the incidence of poverty for 2008-09 steadily rises as the average household size increases, for both rural and urban households (Figure 8 of World Bank 2011). While the WB had used Expenditure per Adult Equivalent as the criterion for ranking, the same strong upward trend is revealed if Income per Adult Equivalent is used as the criterion.

231 However, not all members of the household contribute to increasing poverty. The total household size is the sum of the number of children (who are usually dependents), the number of elderly (who are usually dependents but may have their own sources of income by the time they become old) and the number of working age people (who



7. Impact of Household Size

usually earn income, and would be expected to decrease the incidence of poverty in a household).

232 Graph 7.1 indicates the upward trend in incidence of poverty as the total number of persons in the household increases. However, not only is the same trend there for the number of those aged (0 to 18) but also the latter line is much higher (i.e. the incidence of poverty is much higher) than for the line for total household size.

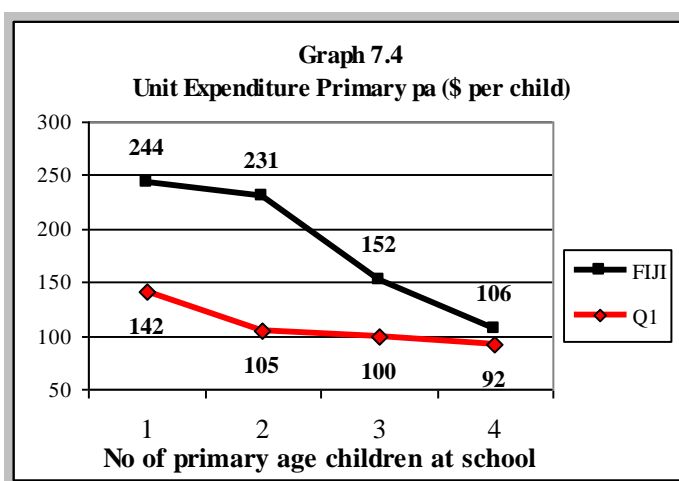
233 Graph 7.2 on the other hand indicates that while the incidence of poverty increases slightly between 0 and 2 elderly in the household, it falls for the third elderly person.

234 Moreover, the graph is flat for the number of potential income earners in the household, those aged 19 to 54: ie the incidence of poverty does not increase with the increase in number of those aged 19 to 54- the potential income earners. This is of course a commonsense result as having an income earner is likely to reduce poverty in the household.

235 Graph 7.3 gives the interesting result that while the incidence of poverty worsened in rural areas between 2002-03 and 2008-09, the increases did not seem to be related to the number of children aged 0 to 18. The reductions in poverty in urban areas, however, do seem to be a bit larger for households with fewer children in the household. In other words, family with fewer children seemed to have larger reductions in poverty.

236 The evidence indicates that attendance at primary school is fairly good throughout Fiji and does not seem to depend on family size.

237 What is affected by the number of children in the household, is the amount of expenditure that households are able to expend on primary education per child. Graph 7.4 indicates that for Fiji as a whole, Unit Primary Expenditure per child is a high \$244 when there is only one child attending primary school, falling slightly to \$231 when there are 2 children, but dropping significantly then to \$152 with 3 children, and even further to \$106 when there are 4 children in the family.³⁷

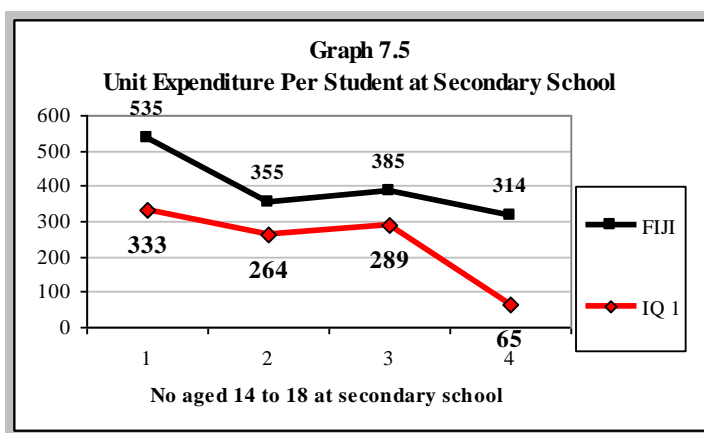


³⁷ In the graphs for Fiji in aggregate, it should be kept in mind that well-off families have fewer children, so expenditure per child will naturally be higher because of the well-off households (and conversely).

7. Impact of Household Size

238 For households in Quintile 1 (i.e. the bottom 20%), unit expenditures are of course much lower, but households with only 1 child attending primary school, the unit expenditure is \$142 which is around 40% higher than what is spent if households have more than one child attending primary school.

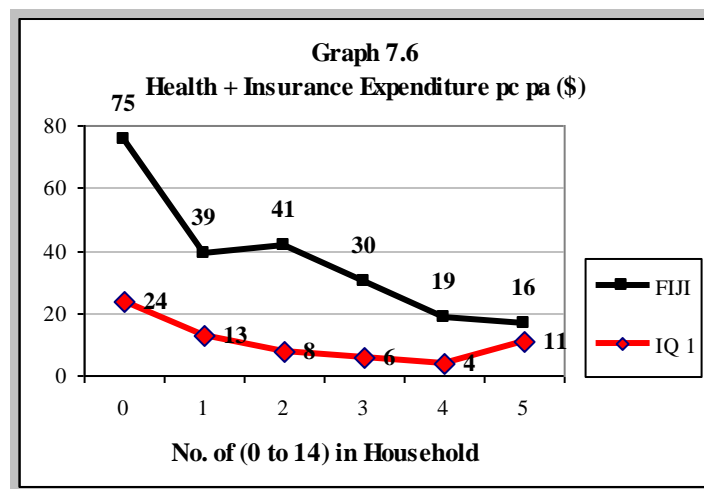
239 At the secondary level, for Quintile 1, unit expenditure per child at secondary school is generally lower than that for all children, but clearly indicates that unit expenditure declines sharply to only \$65 per child when the number of children is 4, compared to \$333 per child when there is only 1 child at school (Graph 7.5).



240 What is remarkable is that the unit expenditure at the top quintile when there is only 1 child in the household is an extremely large \$1004, which drips to \$483 with 2 children, and a mere \$237 with 3 children at school (graph not given here).

241 Both the above graphs indicate that households are able to spend more per child, and presumably improve the quality of their children's education more, when there are fewer children in the family.

242 Graph 7.6 indicates quite similar trends in Health and Insurance Expenditure per capita per annum, declining from a high of \$75 for a household with no children, to a mere \$16 for a household with 5 children. For households in the bottom 20% of the population, the levels of expenditure are also much lower, and indicate the general down trend, with increasing numbers of children, falling from \$24 per capita pa when there were no children, to a mere \$4 when there were 4 children.



7. Impact of Household Size

243 A much clearer understanding of the aggregate impact of household size may be had by comparing the Average Household Income and Expenditure, and Household Income and Expenditure per Adult Equivalent. Table 7.3 shows that iTaukei Average Household Income was 9% higher than that of Indo-Fijians, with the advantage reducing to 3%, but still positive, for Average Household Expenditure.³⁸

Table 7.3 Ethnic comparisons of income and expenditure			
	iTaukei	Indo-F	%(iT-I)/I
Av. Income per household	16994	15537	9
Av. Expenditure per household	13957	13585	3
<i>Adjusting for Household Size</i>			
<i>HH Income per AE</i>	<i>3995</i>	<i>4341</i>	<i>-8</i>
<i>HH Expenditure per AE</i>	<i>3281</i>	<i>3796</i>	<i>-14</i>

244 However, when incomes and expenditures are adjusted for household size, then the ethnic relativities are reversed: the iTaukei Average Household Income per Adult Equivalent becomes 8% lower and Household Expenditure per Adult Equivalent becomes 14% less. This would suggest that the material standard of living of iTaukei households will tend to be lower because of their relatively larger household size, and especially because of the higher number of children in the household (as indicated earlier by Tables 7.1 and 7.2).

245 It needs to be also kept in mind that women who have larger numbers of children tend to stay out of the workforce longer, and hence lose a number of years of promotions and training at the work-place, leading to lower incomes over their lifetime. This negative effect on women is also partly a result of Fiji not having enough provisions for paternity leave to enable fathers to share more of the burden of looking after infants and children. The net result, is that having larger numbers of children also puts a downward bias on the incomes of working mothers, and hence a downward bias on total household incomes in which mothers have larger numbers of children.

246 ***Recommendation 7.1: Poverty stakeholders agree that there is generally a downward impacts on household standards of living, including expenditures on education and health, caused by larger numbers of children in the family.***

247 ***Recommendation 7.2 Poverty stakeholders call for greater urgency, higher levels of resources, and new public education initiatives to be devoted towards the encouragement of family planning and fewer children. Strategies may include the use of fiscal incentives by government, such as fully subsidized provision of family planning medications and procedures.***

³⁸ It needs to be kept in mind that the HIES does not capture the corporate sector incomes, in which Indo-Fijians and Others (of Chinese and European origins) have a far greater share than iTaukei. The results here are therefore to be more correctly interpreted as the comparison of the households of ethnic communities excluding the very small wealthy group (perhaps less than 5% of each population) in the corporate sector at the top of all ethnic communities.

8 Food security issues

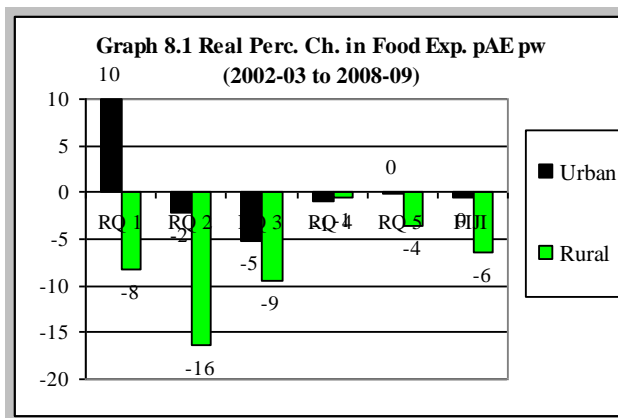
248 Food expenditure patterns and changes in them are good indicators of the impact of changes in poverty and incomes, long-term trends in food security and nutrition, and pressures on balance of payments through food imports.

249 This section explores the trends in total food expenditure for the poor (and the rich) by quintiles, changing expenditure patterns on carbohydrates (and particularly the changing mix between local root crops and imported items such as rice and flour), the changing composition of meat proteins (changing relativities between imported meats such as lamb, chicken, local fish, tinned fish), and junk food consumption (such as sugar and sugary items and snack-foods).

Table 8.1 Food Exp pAE pw (2008-09)		
	Rural	Urban
RQ 1	12.53	13.92
RQ 2	16.21	16.43
RQ 3	20.26	20.97
RQ 4	24.98	26.31
RQ 5	34.42	38.69
FIJI	21.84	23.41

250 Table 8.1 indicates the fairly steady increase in Food Expenditure per Adult Equivalent till the fourth quintile with very similar values for rural and urban households, except for the fourth and fifth urban quintiles, where the higher incomes no doubt led to much higher expenditure on food.

251 With the Fiji CPI for Food increasing by around 42% between 2002-03 and 2008-09, Graph 8.1 indicates the quite unusual patterns of change between the two HIES of actual expenditure on food by the different quintiles. The bottom three rural quintiles saw large declines in the real expenditure on food per adult equivalent (adjusted for inflation), with the larger declines taking place also at the highest quintile.



252 Urban households also saw real declines in expenditure per adult equivalent in the second and third quintile although the bottom quintile saw a large increase of 10%. Overall, rural food expenditure per adult equivalent in urban households remained about the same, while that in rural households decreased by 6%.

Table 8.2a Perc. of Population With Food Expenditure Below FPL values			
	2002-03	2008-09	% Ch.
Rural	59	64	7
Urban	61	56	-7

8. Food security issues

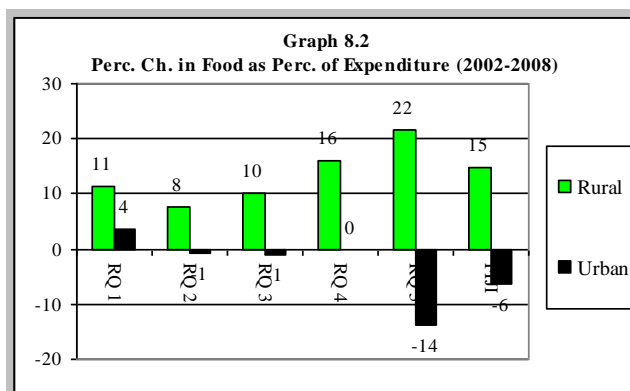
253 The improvement in food consumption in the urban areas and deterioration in the rural areas is confirmed by Table 8.2a. The proportions of the population in rural areas, whose actual expenditure on food was less than the estimated dollar value of the Food Poverty Line baskets used to construct the Basic Needs Poverty Line (as given in Table 2.1), increased by 7% from 59% to 64%, while the corresponding proportion in urban households declined by 7% from 61% to 56%.³⁹ These are quite high values suggesting that large proportions of the households do not spend enough on food to achieve the minimum nutritional requirements.

Table 8.2b Food Exp. as % of Total Expenditure			
	2002	2008	% Change
Rural	41	46	15
RQ 1	47	53	11
RQ 2	49	53	8
RQ 3	47	52	10
RQ 4	42	48	16
RQ 5	32	39	22
Urban	26	25	-6
RQ 1	36	37	4
RQ 2	33	32	-1
RQ 3	31	31	-1
RQ 4	27	27	0
RQ 5	21	18	-14
FIJI	32	32	-2

254 It is a universal tendency that as real incomes increase, food expenditure as a proportion of total expenditure tends to decline. Conversely, if incomes are falling, then food as a proportion of total expenditure tends to rise.

255 Table 8.2b indicates that Food Expenditure as a percentage of total expenditure is fairly low in comparison to other Pacific countries. Overall in aggregate, there was a slight -2% decrease in the Food as a percentage of total expenditure suggesting minor improvements in standards of living in aggregate.

256 However, there was an increase in rural areas from 41% to 46%, reinforcing the earlier conclusion of a deterioration in living standards in rural areas.



257 In urban areas, however, there was a decline in the ratio from 26% to 25% suggesting an overall improvement.

258 Graph 8.2 depicts the data in Table 8.2b, with the rural quintiles all showing increases in the food as a proportion of total expenditure, suggests that rural areas were facing constraints in income which led them to increase the proportions spent on food, especially in quintiles 4 and 5 where the increases were larger.

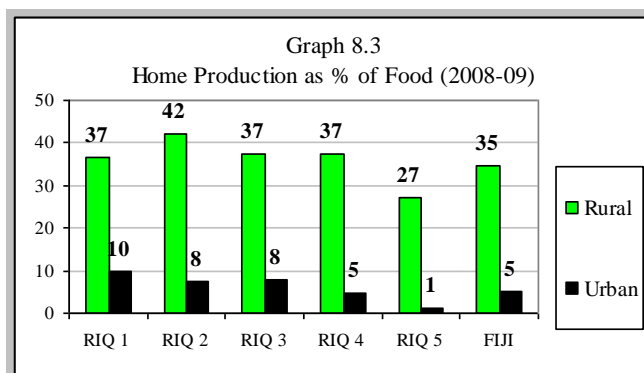
³⁹ Using the WB values for the FPL and ranking by Income per AE, gives the corresponding changes in proportions as an increase of 10% in rural areas, and a reduction of 5% in urban areas, consistent with the results here.

8. Food security issues

- 259 In contrast, urban quintiles saw large reduction in food as a proportion of income for the fifth quintile (suggesting that it was the top quintile which saw the largest improvement in urban areas), and a small increase for the first quintile (suggesting a deterioration in the poorest urban quintile).

Own Consumption, Home Production or Subsistence

- 260 An important food safety net for the community is the ability to produce own food for consumption, measured by Home Production as a percentage of Total Food consumed, especially in rural areas.



- 261 Of course, urban households, with a lack of access to land cannot be expected to grow their own food. Graph 8.3 indicates that in 2008-09, urban households on average only produced 5% of their food consumption. The poorest urban quintile (RIQ1) however still produced a significant 10% of their total food consumption, while RIQ2 and RIQ3 produced only slightly less at 8%. As would be expected, the top quintile (IQ5) only produced 1 percent of their food consumption.

- 262 The rural households produced a higher proportion of their food consumption at 35% with the second quintile producing a maximum of

Table 8.3 Perc. Change in Home Production as Percent. of Total Food 2002-03 to 2008-09						
	RIQ 1	RIQ 2	RIQ 3	RIQ 4	RIQ 5	FIJI
Rural	-18	-15	-22	-16	-24	-20
Urban	-14	-11	1	-49	-85	-43

42%. Unusually, however, rural Quintile 1, produces a somewhat lower 37% compared to 42% for RQ2, and 37% for RQ3. It is possible that RQ1 contains relatively more households who do not have access to their own land. Somewhat positive is that RQ5, the top rural quintile also produces some 27% of their total food consumption.

- 263 This aspect of food security shows a significant deterioration between 2002-03 and 2008-09. Table 8.3 indicates that not only did the urban households reduce their home production (by a large -43%) but so also did the rural households reduce their food self-sufficiency by -20%. The reductions were moreover uniform across all the quintiles, including an 18% reduction for RQ1 and 22% for RQ3.

- 264 It would seem that even during a time of economic worsening in rural areas, rural households were reducing their self-sufficiency in food. It is useful to examine

8. Food security issues

this in greater detail with respect to the major groups of food items, such as carbohydrates and meats.

Carbohydrates

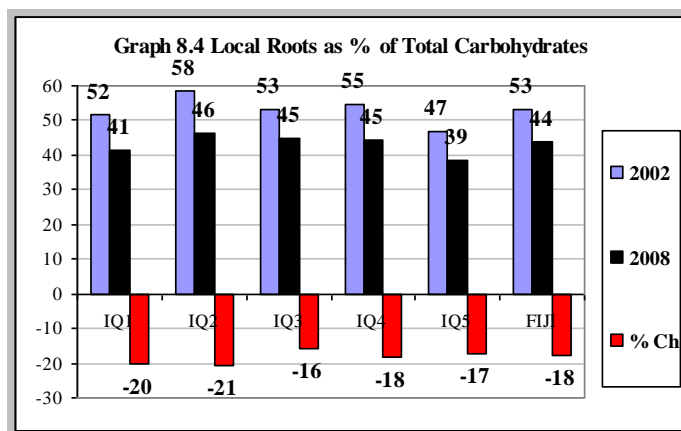
265 While Total Food Expenditure pc⁴⁰ pa rose by 40% (in nominal terms), *dalo* rose by only 2% and *cassava* by 25% (Table 8.4). Expenditure on the main competing carbohydrates rose by 77% for rice, 44% for flour, and a large 81% for noodles. These competing items are imported or manufactured using imported raw materials.

Table 8.4 Expenditure pc pa			
	2002-03	2008-9	% Ch.
Local roots pc pa (\$ and %)			
Cassava	43.87	54.71	25
Dalo/taro	31.55	32.33	2
Imported carbohydrates pc pa (\$ and %)			
Potatoes	11.00	13.04	19
Rice	33.85	59.93	77
Flour	33.57	48.27	44
Noodles	8.20	14.82	81

266 While cassava was the most important item in 2002-03, by 2008-09, rice had become the most important single carbohydrate item. By 2008-09, noodles had become more important than potatoes, a reversal from 2002-03.

267 The above data indicate powerfully that there is a strong trend of imported items displacing domestically produced foods, an issue of great national concern. While one expects that this is more likely to be the trend for the well-off in society whose higher income enables them to consumer the more expensive imported foods, is this also the case for the poorer people?

268 Graph 8.4 indicates that the poorest national income quintiles have also shifted significantly from the consumption of local root-crops to imported carbohydrates. While nationally, the proportion declined by 18% from 53% to 44%, for the lowest quintile, the decrease was even greater, by 20% from 52% to an even lower 41%. For Quintile 2, the decline was also significant, falling from a high of 58% to 46%.



⁴⁰ Because children generally consume less than adults, the more accurate indicator is Expenditure “per Adult Equivalent”. However “per capita” expenditures are used in this section as more easily understood by the public. The results are however very similar.

8. Food security issues

269 As would be expected, at the top quintile, by 2008-09, local root crops had the lowest proportion of 39% compared to 49% in 2002-03.

270 One possibility that needs to be investigated is whether this trend towards imported carbohydrates

is simply a reflection of the urbanization that is currently taking place at a rapid rate. Graph 8.5 indicates that not only did the bottom rural quintile (below the zero axis) show

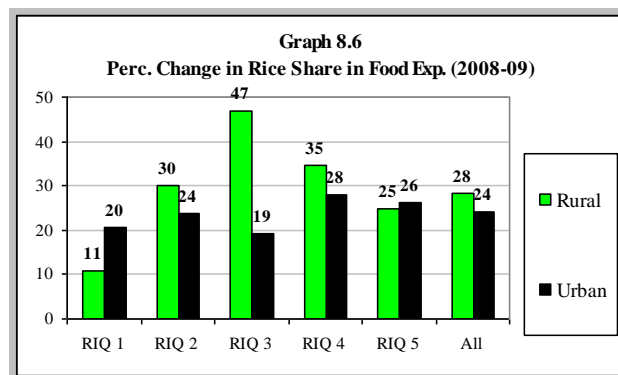
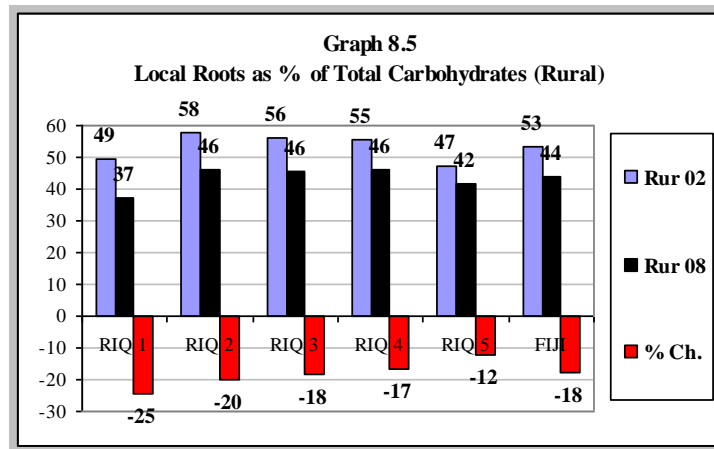
the largest decline in local root-crops as a percentage of total

Area	RIQ 1	RIQ 2	RIQ 3	RIQ 4	RIQ 5	FIJI
Rural	-25	-18	-18	-16	-10	-17
Urban	-15	-5	31	-15	-67	-13

carbohydrates (by 25%), but it ended up with the lowest proportion as well, with only 37% (above the zero axis). All the bottom rural quintiles showed significant decreases in the proportions of local root crops, with all falling below 50% by 2008-09. The converse of all this is of course, the relatively greater increase in expenditure on imported carbohydrates such as rice, flour and flour products such as noodles.

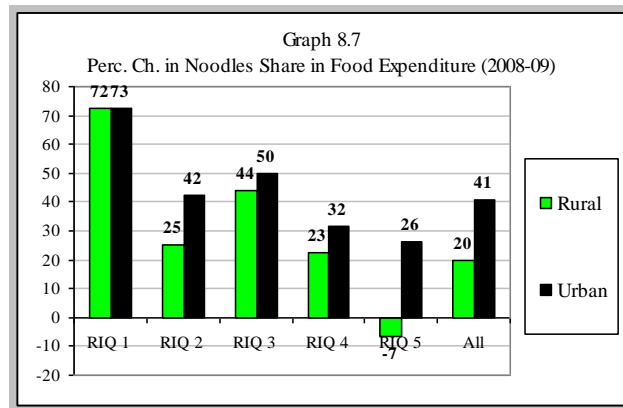
271 Along with the move towards greater consumption of imported carbohydrates, is also a very strong trend towards the reduced share of “Own Production” or “Own Consumption” of local root crops as indicated by Table 8.5. As would be expected, there are major decreases in the urban areas, with the largest decline of 67% taking place at the top urban quintile.

272 However, the rural households also saw significant declines, with the largest decreases taking place at the lowest quintiles, and the lowest decrease at the highest quintile. This is cause for concern since it might be expected that with economic downturn, rural households ought to be resorting to own production of foods, especially at the poorer quintiles.



8. Food security issues

273 The two carbohydrates that need further investigation are rice and noodles. The per capita expenditure on rice consumption increased by 74% in rural areas and 78% in urban areas.⁴¹ Graph 8.6 indicates that for all regional quintiles (i.e in both rural and urban households), the share of rice in total Food Expenditure increased significantly. The increases were higher in the upper quintiles, suggesting that the price increase in rice (approximately 98%) may have been a prohibitive factor for the lower quintiles. Anomalously, the increase in the importance of rice expenditure in food, was greater for rural households than for urban households in all the middle quintiles.



274 Graph 8.7 indicates the large increases in the noodles share of expenditure on food, rising by 41% in urban households, and 20% in rural households. The remarkable trend is that the highest increases of more than 70% have taken place in both the rural and urban bottom quintiles.

275 It seems that the forces encouraging rural consumers to consume imported carbohydrates are far stronger than the question of availability of local substitutes. One factor that needs to be investigated is whether the poorest rural people (for example in RQ1) do not have free access to agricultural land. A second possible factor is that the move towards imported food-stuffs is driven by the relative cheapness of imported carbohydrates, whose consumption make the poorer consumers' dollars "go further".

⁴¹ With the FBS apparently registering an increase in the rice price by 98%, even these large nominal increases would suggest that the quantities consumed may have decreased.

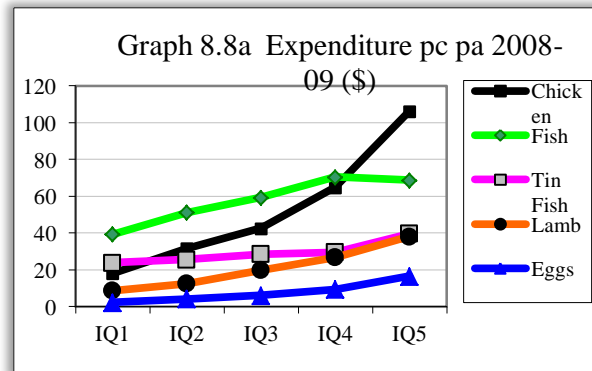
8. Food security issues

Meats and Canned Fish

276 Table 8.6 suggests that while Fresh Fish remained the most important meat item, expenditure on it rose by only 31% in nominal terms while that on chicken rose by 53%, and on Canned Fish by 21% .

Table 8.6 Expenditure on Meats pc pa			
	2002-03	2008-09	% Ch.
Fish	44.12	57.85	31
Tinned Fish	24.32	29.51	21
Chicken	34.53	52.77	53
Lamb	17.91	21.24	19
Food Total	717.72	1002.24	40

277 Graph 8.8a indicates that while fresh Fish was the most important meat for the poorest quintile in 2008-09, followed by Canned Fish, chicken was increasingly the most important for all the other quintiles, rising very rapidly for the top quintile. Fresh Fish expenditure per capita declines slightly for the top quintile. The other meats (beef and pork) are relatively unimportant (graphs not given here). Canned fish consumption is fairly level throughout the quintiles, rising only slightly for the top quintile.



278 Table 8.7 indicates that for national quintiles, the largest increase in expenditure per capita has been on chicken, followed by Canned Fish, and Fresh Fish. Two interesting trends are that for the bottom two quintiles, both chicken and fresh fish had large increases.

279 Pork had reduced per capita expenditure for all quintiles, with the largest decreases taking place at the lowest quintiles. Beef also saw large decreases at the lowest two quintiles. For these two meats, relative affordability was probably the important factor.

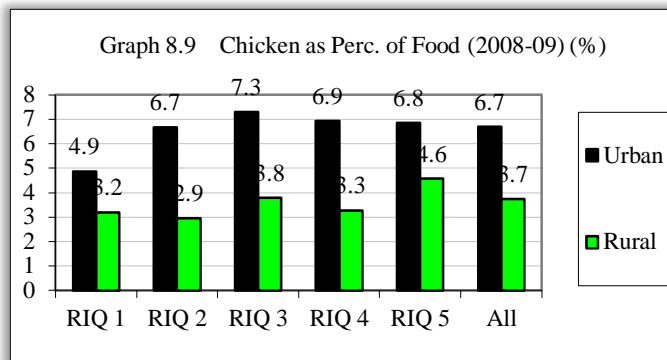
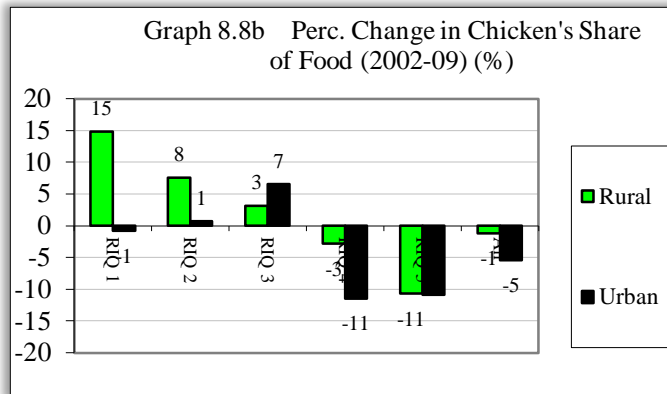
Table 8.7 Perc. Change in Expenditure pc (2002 to 2009)						
	IQ1	IQ2	IQ3	IQ4	IQ5	FIJI
Chicken	73	82	40	51	49	53
Can Fish	36	46	47	37	54	44
Fish	65	34	37	31	12	31
Eggs	12	4	3	24	39	22
Lamb	16	2	25	19	23	19
Beef	-45	-24	-17	-1	34	5
Pork	-72	-72	-62	-3	-30	-46

280 Of some concern is that the top quintile showed only a 12% nominal increase in per capita expenditure of fish, which would amount to a significant decline in real expenditure given that fresh fish may have had a price increase of around 40% during this period.⁴² One might expect that high income households would be more health conscious and consume more fresh fish.

⁴² The fish species priced by the FBS do not have the same weights as that consumed throughout Fiji.

8. Food security issues

281 Graph 8.8b indicates some very unusual changes taking place in chicken's relative importance in overall food expenditure. All rural quintiles saw significant increases in aggregate amounting to a 24% increase. However, while the lower rural quintiles all saw the largest increases and the lower urban quintiles saw moderate increases, in complete contrast, the urban upper quintiles saw moderate decreases in chicken's share of total food expenditure.



282 Graph 8.9 indicates the uniform importance of chicken throughout the urban quintiles, at around 7% of total food expenditure, with the share dropping for the lowest urban quintile, probably because of affordability. The shares for rural households are roughly half that for urban households.

283 Table 8.8 indicates that the top two quintiles in both rural and urban areas, saw significant reductions in the importance of meats and eggs in their total food expenditure, with a 11% reduction in the top quintiles. Are these changes due to the upper quintiles becoming more diet conscious with a reduced emphasis on meat? The poorest two rural quintiles however saw increases in the proportions spent on meat and eggs. These trends need further investigation.

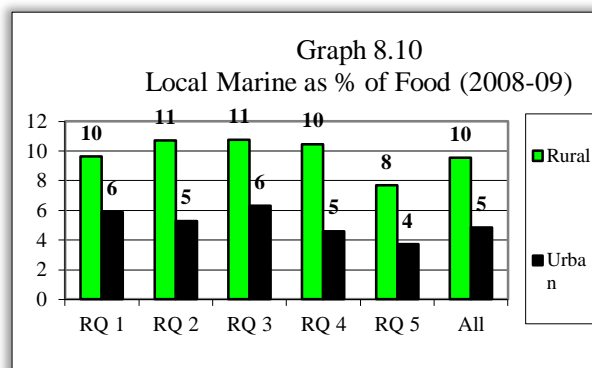
Table 8.8 Perc. Change in All Meat and Eggs as % of Food (2002-09)		
	Rural	Urban
RIQ 1	15	-1
RIQ 2	8	1
RIQ 3	3	7
RIQ 4	-3	-11
RIQ 5	-11	-11
All	-1	-5

8. Food security issues

Marine Foods

284 In Fiji as in most Pacific Island countries, marine foods are an important part of the diet.

285 Graph 8.10 indicates that all rural quintiles supplied roughly 10% of their food expenditure through local marine foods (fresh fish and other marine products, excluding Canned Fish), with urban households roughly half of that around 5%.



286 Table 8.9 however indicates that the long term trend is for Local Marine Foods to reduce their contribution to Total Food, by -11% in rural households, and a much larger 16% decline for urban households. The decreases seem to affect both the poorest and the richest households.⁴³

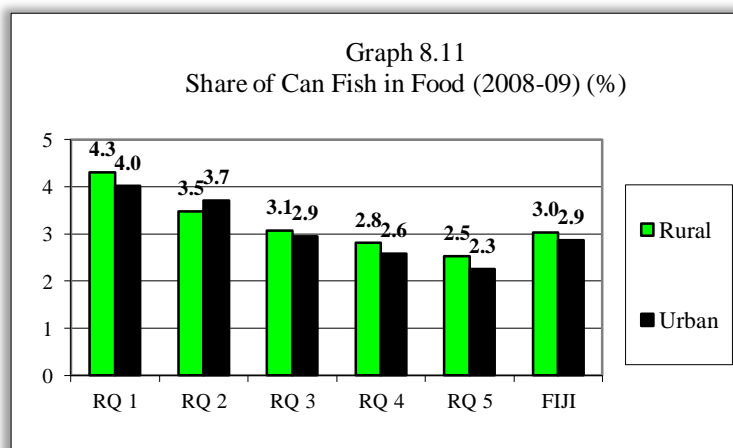
Table 8.9 Percent. Change in Local Marine Food Share of Total Food (2002-2009)

	Rural	Urban
RQ 1	-11	-21
RQ 2	-10	-27
RQ 3	-8	13
RQ 4	3	-13
RQ 5	-23	-25
All	-11	-16

287 Graph 8.11 shows the clear importance of Canned Fish in the diets of both rural and urban people, with higher percentages at the lower quintile, fairly equal for both rural and urban households.

288 The data also indicates that the share of Canned Fish in Food Expenditure has increased between 2002-03 and 2008-09 by 3% in rural households and 5% in urban households. The quintile patterns were somewhat complex, with urban quintiles consuming relatively more of Canned Fish.

289 It would seem that local marine foods are giving way to other meats which are either imported (like lamb and Tinned Fish) or have significant import content in feed, such as chicken.



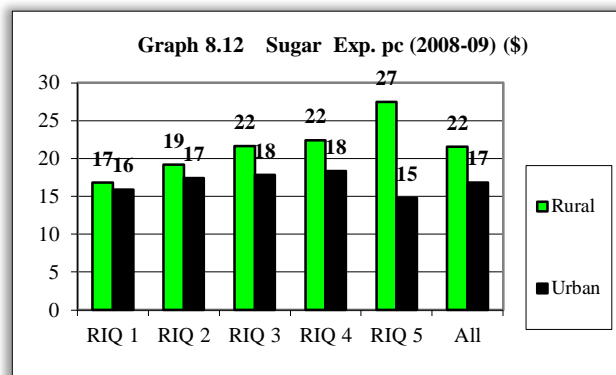
⁴³ A full account of the deterioration in the consumption of marine foods may be read in "The Regression of Marine Foods Consumption in Fiji: changes 2002-03 to 2008-09". *South Pacific Studies*, Vol.32, No.2. 2012.

8. Food security issues

- 290 There are three important policy implications of this trend. The first is that much of the local marine foods such as fish, shell-fish and seaweeds are extremely nutritious and certainly more nutritious than imported food-stuff. Second, they are also part of the unique iTaukei culture and worth preserving. Third, these foods are all local foods, generating local employment and incomes, and saving foreign exchange. All three require that policy makers do all they can to encourage the greater consumption of local marine foods, or at least stem the relative decline.

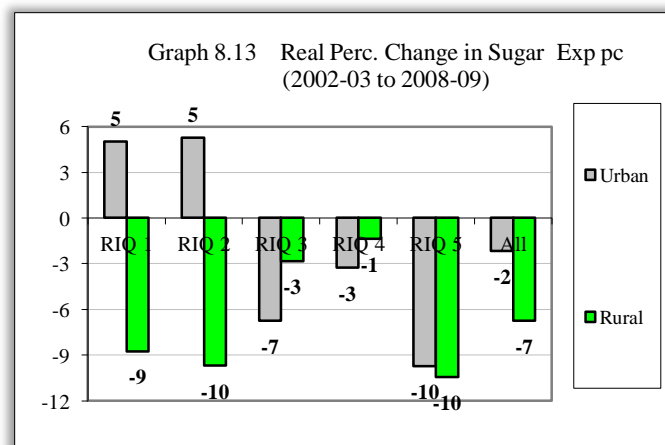
Sugar and junk-food consumption

- 291 The excessive consumption of sugar, sugary products and “junk-food” items with minimal nutritional content is of great concern to the Ministry of Health. Excessive consumption of sugar leads to the increase of Non-Communicable Diseases (NCDs) such as diabetes, which poses enormous physical damage to the victims, and logistical and financial burdens on the Ministry of Health in coping with the disease. The HIES data reveals several dimension to the consumption of sugar and junk food items, with a mix of “good news” and “bad news”.



- 292 Graph 8.12 indicates the unusual change in relativity in that rural consumption of sugar per capita is significantly higher than the urban values for every quintile. It is especially a high \$27 per capita for the Rural Quintile 5. Graph 8.12 also has the worrying trend that as income increases, the amount of sugar consumption increases quite steadily for the rural areas.

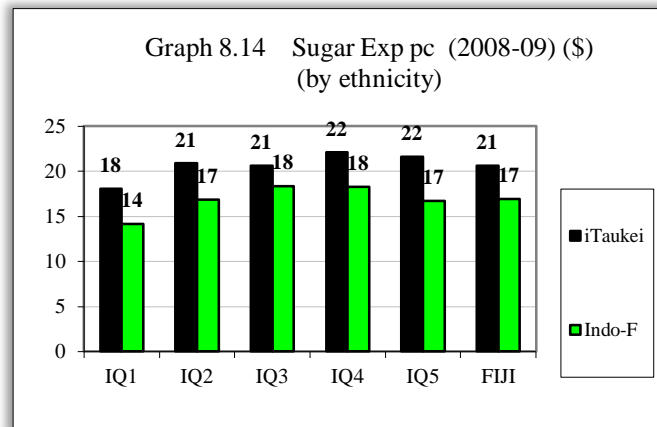
- 293 The good news is that for the urban quintiles, the values are pretty stable for the first four quintiles, and drops for the urban fifth quintile. This would suggest that urban households are more conscious of the need to restrict sugar intake, and the top quintile far more than the others.



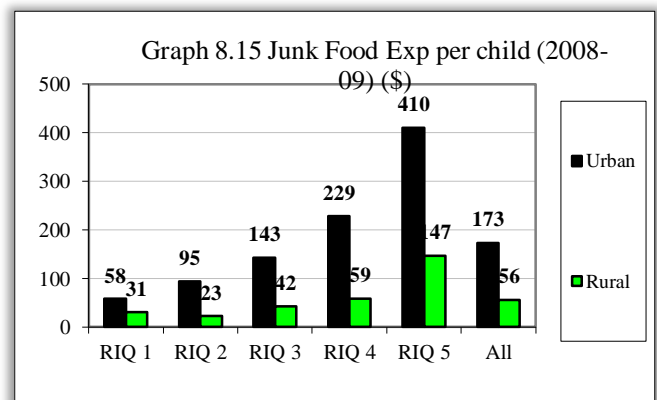
8. Food security issues

294 Graph 8.13 indicates the excellent news that most of the quintiles are showing significant decreases in their real expenditure (adjusted for the price rise in sugar) per capita, with the rural quintiles showing the largest decreases. The only exceptions are the lowest two urban quintiles, who still show 5% increases between the two HIES. It is important that education campaigns are conducted amongst the poorest urban communities as well as the rural communities, whose consumptions are currently at quite high levels.

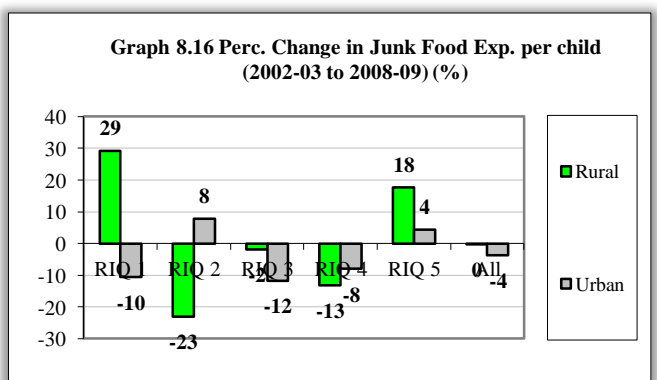
295 Graph 8.14 indicates that the publicity campaigns need to be conducted especially amongst iTaukei whose consumption per capita is higher than that of Indo-Fijians at all quintile levels. Both ethnic groups indicate the good news of lower levels of consumption at the highest two quintiles.



296 Graph 8.15 shows the quite alarming results that not only are children spending much higher amounts on “junk food”⁴⁴ expenditure per annum, but there are extremely high levels of consumption taking place at the higher income levels with the per child expenditure for urban quintile five being more than six times higher than that for the lowest quintile. It is clear that education campaigns must especially focus on the urban upper income quintiles.



297 Graph 8.16 indicates the excellent news that nearly all the quintiles are showing



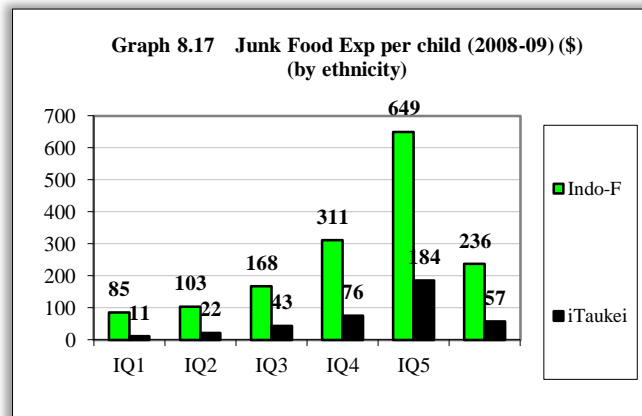
⁴⁴ The items classified as “junk foods” are soft drinks, ice cream and ice lollies, sweets, airy snacks such as bongoes, twisties, UFOs. Excluded are the traditional Indian snacks such as sao and beans, although Indian sweets are included.

8. Food security issues

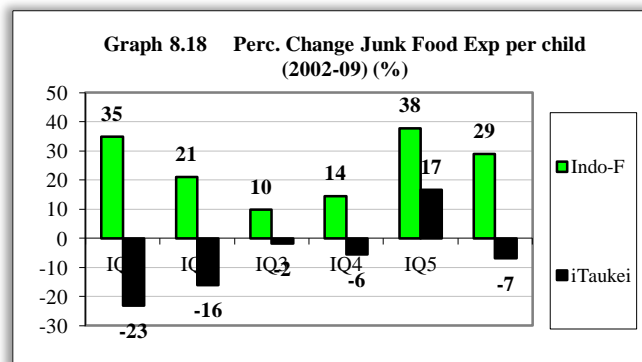
decreases in nominal expenditure per child, which would translate into much larger decreases in real terms, if price increases in the junk foods were to be taken into account.⁴⁵

298 As the overall increase in prices is likely to be higher than 30 percent between the two HIES, even the nominal increases indicated in Graph 8.15, would convert to decreases in real terms.

299 Graph 8.17 indicates the extremely strong ethnic dimension, with Indo-Fijians spending around four times per child as much as that spent by indigenous Fijians. The expenditure by Indo-Fijian children in Quintile 5 is more than ten times higher than the average for Fijians.



300 Analysis of the changes taking place between the two HIES suggests that there are large nominal increases taking place for both poorer and richer Indo-Fijians. This pattern of Indo-Fijian households spending so much on junk foods consumed by children, is likely to be related to the fact that Indo-Fijian households, because of the their small size due to fewer children, end up with more disposable income than indigenous Fijian households, available for non-essential expenditure.



301 Stakeholders however must investigate why there is such a large difference between Indo-Fijians and iTaukei. An additional factor that needs to be investigated is the influence of advertisements targeting Indo-Fijian consumers.

302 Graph 8.18 reveals the interesting U-shaped pattern of change between 2002-03 and 2008-09 amongst Indo-Fijians, with large increases taking place at the lowest and highest quintile, quite a different pattern of change from the iTaukei. More research needs to be done to explain such differential patterns.

⁴⁵ Given the large number of items involved, it would be difficult to obtain a composite price index for all the junk food items.

8. Food security issues

- 303 *Recommendation 8.1 Stakeholders agree on the need for a major effort to revitalize home production and consumption in both rural and urban households through innovative campaigns.*
- 304 *Recommendation 8.2 Stakeholders agree on the need for major infrastructure improvements to the marketing of locally produced agricultural and marine products.*
- 305 *Recommendation 8.3 Stakeholders agree on the need for major infrastructure initiatives throughout Fiji to improve the access of consumers to quality local fresh foods.*
- 306 *Recommendation 8.4 Stakeholders agree on the urgent need to improve the quality and presentation of value added agricultural and marine products in super-markets and shops (including the use of ice for marine products), to counter consumer tendencies to move towards imported processed foods.*
- 307 *Recommendation 8.5 Stakeholder agree on concerted national campaigns and competitions to design nutritious snack foods using local agricultural and marine products, that are acceptable to children's tastes, and affordable in the Fiji situation.*
- 308 *Recommendation 8.6 Stakeholder agree on the need to place "health taxes" on nutritionally poor snack foods and other foods such as fatty meats, with the tax revenues being earmarked for campaigns for better quality food products.*
- 309 *Recommendation 8.7 Stakeholders agree on the need to ban advertisements for non-nutritious snack foods on television and radio*
- 310 *Recommendation 8.8 Stakeholders agree on the need to ban sponsorship of children's sports by manufacturers of non-nutritious food products, with the revenue short-falls for sporting bodies to be provided by tax-payers through the annual Fiji Government budget.*
- 311 *Recommendation 8.9 Stakeholders agree on the need to monitor the fat and general nutrition content of certain meat products such as sausages and lamb portions.*
- 312 *Recommendation 8.10 Stakeholders agree on the need for dramatic and innovation initiatives to encourage all the ethnic groups to learn to use local foodstuffs in their everyday cooking. One major initiative, conducted jointly between the Fiji Food and Nutrition Committee and Food, Catering and Nutrition Departments of tertiary institution, and local television stations, could be an appropriately designed and produced "Fiji Master Chef" competition for television, that fosters the use of all the key local food stuffs in exciting and innovative recipes.*

9 Narcotics: alcohol, tobacco and yaqona

313 While alcohol and kava taken in moderation are not considered health risks, excessive consumption is known to pose severe costs both to the individual and to society in a number of ways. Tobacco⁴⁶ consumption is unquestionably thought to be negative for both individuals and society in terms of health and public finance impact.

314 This section examines the differences in narcotic consumption by rural and urban areas, by quintiles, and by ethnicity where such differences are significant, and changes indicated between 2002-03 and 2008-09. There is mixture of "good" news and "bad".

Table 9.1 Alcohol Exp. per Adult Per annum (\$)			
	2002	2008	% Ch.
	\$		%
Rural	10.45	9.54	-9
Urban	25.42	26.31	3
FIJI	17.47	18.08	4

Alcohol products

315 Table 9.1 gives the national changes taking place. Between the two HIES, there was a small 4% nominal increase in alcohol expenditure per adult, with a 3% increase in urban areas and a 9% decline in rural areas. With moderate increases in the prices of most alcohol products, the above data would indicate that overall alcohol consumption has probably gone down in real terms, adjusted for inflation. There are however worrying patterns at the quintile level.

316 Table 9.2 indicates that for 2008-09, urban quintiles 5 (\$77) and 4 (\$27) and rural quintile 5 (\$28) had quite high values for per adult expenditures on alcohol products. Given that what is recorded in the HIES is bound to be underestimated, the actual expenditures are probably much higher. Further, if allowance is made for the fact that many households do not consume alcohol at all, then the actual average expenditure per consuming adult is likely to be even higher.

Table 9.2 Alcohol Exp. per adult (2008-09) (\$)		
	Rural	Urban
RIQ 1	3	2
RIQ 2	1	14
RIQ 3	4	6
RIQ 4	9	27
RIQ 5	28	77
All	10	26

317 The question that poverty stakeholders might wish to address is the extent to which the considerable advertising on alcohol products (such as through radio and sports sponsorships) and the culture of "social clubs" encourage the excessive consumption of alcohol products.

Table 9.3 Perc. Change in Alcohol Expenditure per adult (2002-09)		
	Rural	Urban
RIQ 1	-49	48
RIQ 2	-79	23
RIQ 3	-41	-73
RIQ 4	143	-14
RIQ 5	-10	37
All	-9	3

⁴⁶ Tobacco here refers to all tobacco products including cigarettes.

318 Table 9.3 gives the generally good news that nearly all quintiles in rural areas saw decreases in the per adult expenditures on alcohol products (with the exception of Rural Quintile 4) as well as the two middle quintiles in urban areas. It is unclear whether this was due to increased hardship or a desire to reduce alcohol consumption for health reasons.

319 However, it is of concern that there were nominal increases in urban quintiles 1, 2, and 5 (although these would probably reduce to insignificance if allowance were made for price inflation).

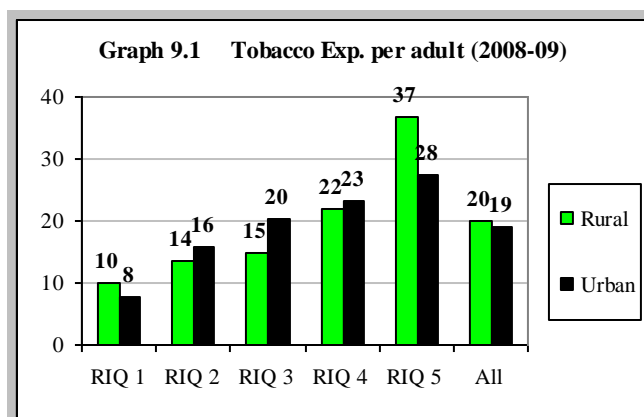
Table 9.4 Tobacco Expenditure per adult (\$ and %)			
	2002	2008	% Ch.
Rural	21.55	19.91	-8
Urban	24.41	19.19	-21
FIJI	22.89	19.54	-15

320 Overall, the real consumption of alcohol products (taking price inflation into account) has probably decreased significantly in rural areas, and moderately in urban areas. While the rural deterioration may have been driven by economic decline there, the urban decline is probably due to public education campaigns by the Ministry of Health and a greater awareness of the health consequences of excessive alcohol consumption.

321 Stakeholders need to examine active policies to further discourage the consumption of alcohol products. Some are suggested at the end of this section.

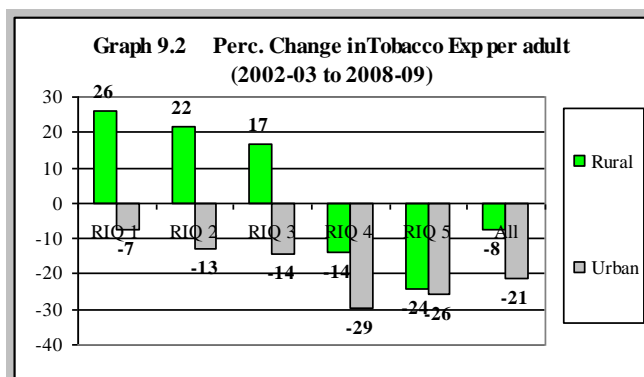
Tobacco products

322 The HIES results for Average Tobacco Expenditure per adult (Table 9.4) also indicate some good news. In nominal dollars, there was an 8% reduction for rural households and a large 21% reduction for urban households, resulting in an aggregate 15% reduction for Fiji as a whole. Given that tobacco and cigarette prices were rising during this period, the real decreases would be of a greater magnitude.



323 Graph 9.1 indicates that the consumption for the poorest rural quintile and the richest rural quintile is higher than that for their urban counterparts.

324 Graph 9.2 gives nominal expenditure changes between

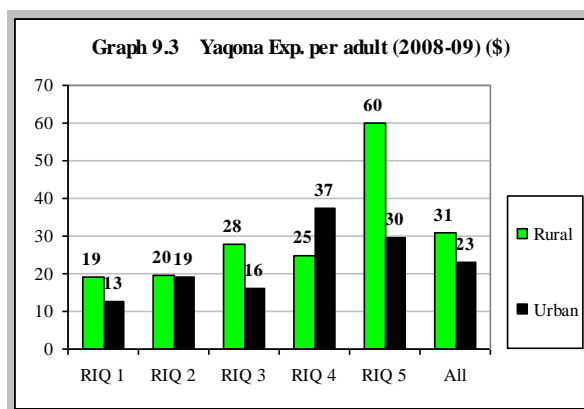


2002-03 and 2008-09. The good news is that all urban quintiles have been reducing their expenditures per adult, as also have been the top two rural quintiles. The real changes adjusting for the changes in tobacco product prices are probably of greater magnitude.

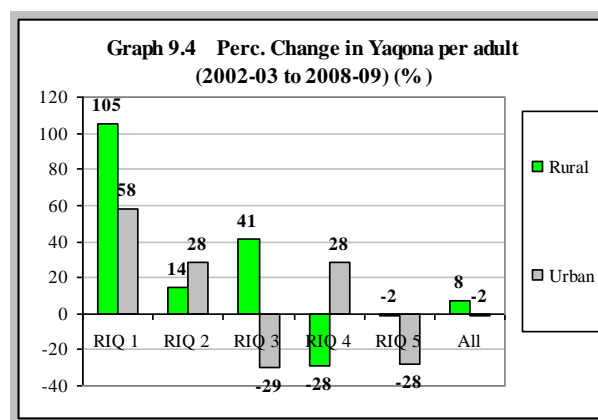
- 325 However, the bad news is that the lowest three rural quintiles indicate moderate increases in nominal expenditure per adult, suggesting that education campaigns need to focus efforts on the poorer rural people, as well as the well off in rural areas who still have significantly higher consumption levels.

Yaqona/Kava

- 326 Yaqona expenditure per adult shows similar trends to that of tobacco expenditure, with rural quintiles generally having higher levels than their urban counterparts (Graph 9.3). The fifth rural quintile indicates a very dramatic jump in consumption from the other four quintiles which are fairly uniform in the amounts they consume.



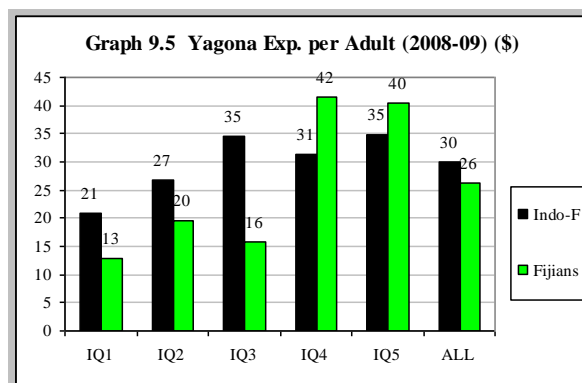
- 327 Graph 9.4 indicates that while two of the urban quintiles show nominal decreases in expenditure per adult equivalent, the lowest rural quintile shows an extremely large 105% increase in expenditure. Overall, the rural quintiles had an 8% increase in expenditure per adult while the urban areas had a 2% decline.



- 328 Table 9.5 indicates the quite interesting development that between 2002-03 and 2008-09 there has been a complete reversal of ethnic relativities in yaqona consumption. Fijian consumption per adult declined by 9% while that for Indo-Fijians increased by 22% resulting in Indo-Fijians having a higher yaqona consumption per adult than indigenous Fijians in 2008-09.

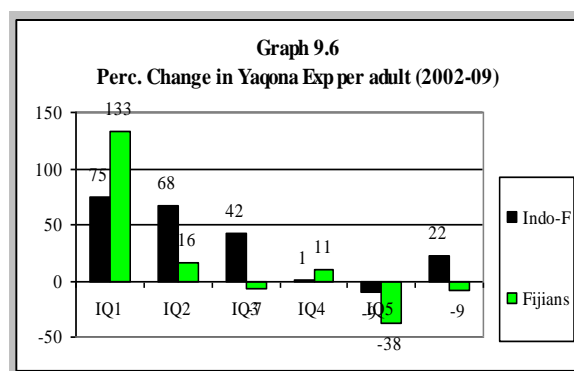
	2002-03	2008-09	% Ch.
Fijian	29	26	-9
Indo-F	25	30	22
Others	15	14	-8
FIJI	26	27	3

329 Graph 9.5 indicates the disturbing feature, that yaqona consumption amongst Indo-Fijians is quite high for the poorest Indo-Fijians in the lowest three quintiles, relative to Fijians whose consumption is relatively higher in the upper quintiles.



330 Graph 9.6 indicates the trend for the poorest Indo-Fijians and Fijians. Between the two HIES, yaqona consumption per adult has increased far more for the Indo-Fijians in the lowest three national quintiles, and for the Fijians in the lowest quintile, than for the higher income groups. The largest percentage change is in fact for the Fijians in Quintile 1, with a 133% increase over 2002-03 levels.

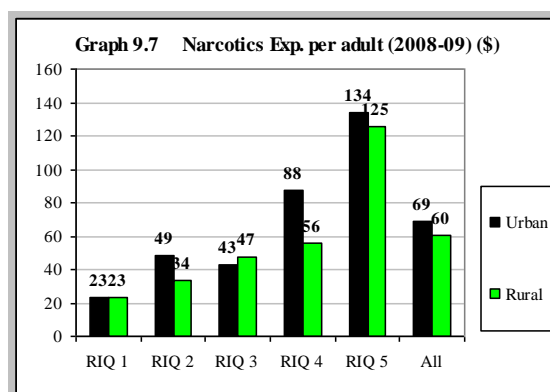
331 Anecdotal evidence suggests that amongst Indo-Fijians, yaqona consumption has become something of a “social evil” at gatherings for weddings and funerals, where even the poorest families feel compelled to provide large quantities of yaqona for the nightly gatherings, at great financial cost. It is important that Indo-Fijian social organizations tackle this emerging problem.



332 It should also be investigated why the indigenous Fijians in the lowest quintile, have such a high increase in yaqona consumption. One possibility is that economic pressures have moved consumption from higher priced alcohol to yaqona, as the data below on total consumption of narcotics suggest.

All Narcotics

333 Despite all the differential quintile changes taking place, Graph 9.7 indicates that the high levels of narcotics consumption are taking place at the top two quintiles, especially in urban quintiles 4 and 5.



334 Graph 9.8 indicates the slightly good news for the upper quintiles in that the trend is for lower expenditure on narcotics in aggregate and probably

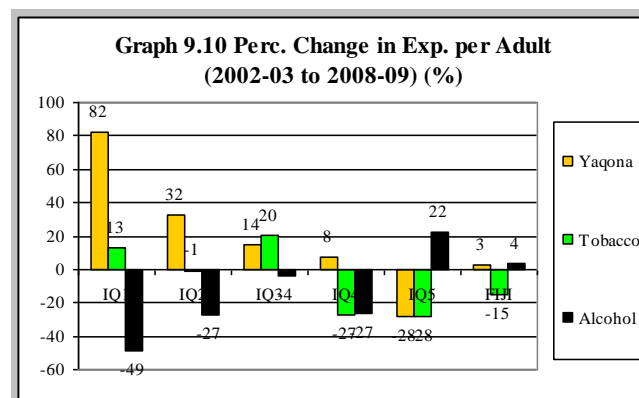
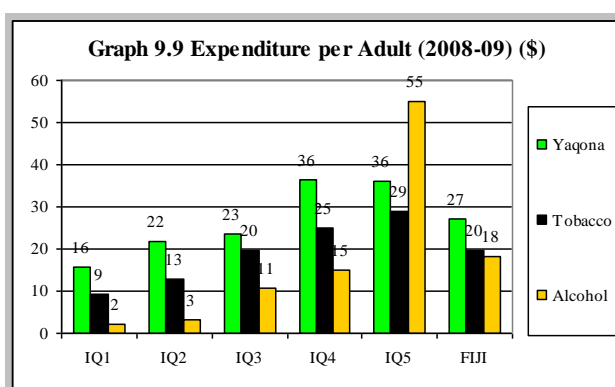
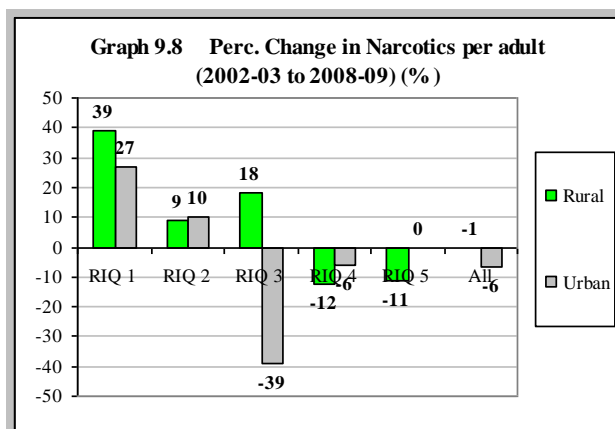
larger declines in real terms if price changes are taken into account.

335 However, the lowest two quintiles indicate quite moderate increases in nominal expenditure, which may not be as significant given the price increases that have been taking place.

336 Graph 9.9 puts all the three narcotics in one picture: not only was yaqona the most important narcotic nationally in 2008-09, but it was also the most important for the bottom four quintiles.

337 While health stakeholders strongly advocate higher taxes on alcohol and tobacco products in order to discourage consumption of these two “bad health” products, one criticism often is that such taxes are “regressive” in that they affect the poorest people proportionately more. While it would be important to estimate price and income elasticities in order to draw sound conclusions, Graph 9.9 strongly suggests that increased taxes on alcohol and tobacco would have lower impact on the poorer quintiles, compared to the well-off. Arguably, alcohol and tobacco may also have larger negative impacts on individual consumers’ health and public health budgets.⁴⁷

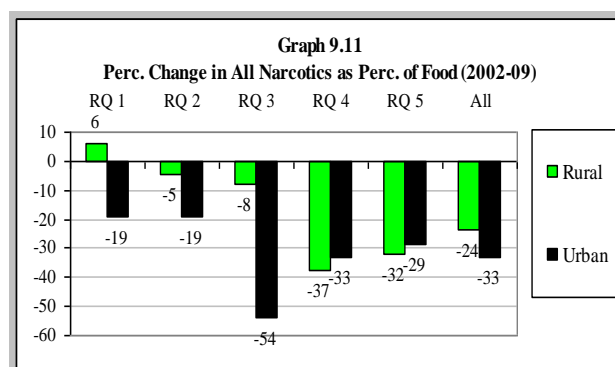
338 Graph 9.10 indicates the changes in expenditure per adult, taking place between the two HIES at the national quintiles. The poorer quintiles are reducing their alcohol expenditure, but increasing their yaqona expenditure, and slightly their tobacco



⁴⁷ While there is no shortage of anecdotal views, health stakeholders may wish to explore through sound research the impact of yaqona consumption on productivity and general welfare of yaqona consumers and their families.

expenditure. The top quintile is increasing its alcohol consumption, but reducing tobacco and yaqona.

339 One graph which indicates some good news all around is Graph 9.11 which gives for regional quintiles, the percentage change in All Narcotics as Percentage of Food. All rural and urban quintiles (except for Rural Quintile 1) show large or moderate decreases.



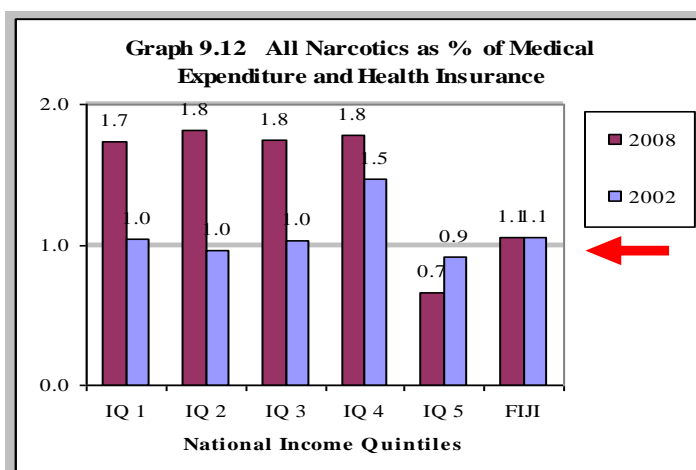
340 The decreases are quite significant for all urban quintiles and largest for 3rd, 4th and 5th quintiles. The declines are quite significant for rural quintiles 4 and 5, but not so significant for rural quintiles 2 and 3. That for rural quintile 1 has increased. This is quite consistent with our earlier conclusions that it has been the upper quintiles in rural areas which have seen the larger decreases in their Income per AE.

Table 9.6 All Narcotics as Ratio of Health and Insurance and % Change			
Inc Quin	2002	2008	
	Ratio		% Ch.
IQ 1	1.04	1.74	67
IQ 2	0.96	1.81	89
IQ 3	1.03	1.75	70
IQ 4	1.47	1.78	21
IQ 5	0.91	0.66	-28
FIJI	1.05	1.06	0

341 The changes taking place are encouraging. Stakeholders in health and poverty may also wish to consider a “health tax” to be also imposed on yaqona, with the increased revenues to be earmarked to the Ministry of Health for related activities.

342 Any proposal for increased taxes usually draws protests from the public.

However some difficult questions need to be faced honestly. One question needs to be asked: how important do consumers rate their expenditure on narcotics relative to other essential household needs, for example medical health and insurance expenditures. Table 9.6 gives the ratio of All Narcotics to Expenditure



on Health and Health Insurance. Any ratio higher than 1 indicates that there is

- more being spent on narcotics than on health, a symptom of bad choices being made in the household.
- 343 In 2008-09, Quintiles 1, 2 3 and 4 all spent more than 70% more on narcotics than they did on Health and Insurance. Only Quintile 5 spent less.
- 344 The changes between 2002-03 and 2008-09 are even more instructive. There was a major reduction of 28% in the ratio at Quintile 5, while all other quintiles saw very large increases in the ratio, especially the poorest three quintiles (Table 9.6, last column).
- 345 This would seem to be an excellent topic of research: why are the poorest 80% of the population, increasing their expenditure on narcotics, relative to medical and health, while the top quintile is reducing it? Or is it that the top quintile has increased its spending on health and expenditure far more than on narcotics.
- 346 Consumers who may naturally be expected to protest at any tax increases being proposed for narcotics (which will of course increase the prices and cost of living), need to also face up to the reality that they are choosing to spend relatively more on health destroying consumption of alcohol, tobacco and yaqona than on medical expenditures (including health insurance) which tend to enhance the health of the household.
- 347 **Recommendation 9.1 Poverty stakeholders strongly recommend further increases in taxes on alcohol and tobacco, with the increased revenues to be earmarked to the Ministry of Health for related activities.**
- 348 **Recommendation 9.2 Poverty stakeholders recommend that the Ministry of Health seeks professional and technical advice on the welfare and productivity impact of excessive yaqona consumption in Fiji.**
- 349 **Recommendation 9.3 Stakeholders consider recommending a health tax on yaqona to discourage its consumption, with the associated tax revenues to be earmarked to the Ministry of Health for related activities.**
- 350 **Recommendation 9.4 Indo-Fijian community groups such as social and religious organizations be encouraged to mount education campaigns to discourage the excessive consumption of yaqona at funeral and wedding gatherings.**
- 351 **Recommendation 9.5 Community groups such as social and religious organizations be encouraged to put pressure on government to ban the advertising of alcohol products.**

10 Health Expenditure (including Health Insurance)⁴⁸

352 Health outcomes are probably the most important welfare indicators for the household. Private health and health insurance expenditure by households which complement public health care expenditure, are therefore important inputs into the good health of the household occupants.

353 This section analyses the household expenditure on health and its components (medicines and medical services) as well as that on Health insurance by rural:urban and by quintiles, and the changes between the two HIES. The main results are the big divide between rural and urban areas, and between the richest quintile and the rest.

Table 10.1 Private HH and Public Health Expenditure		
	2002-03	2008-09
Total Private HH Exp (\$m)	33	35
Govt Health Exp. (\$m)	104	111
Total Health (\$m)	137	146
Private HH share %	24	24

354 Table 10.1 indicates that household expenditure on Health and Health Insurance (H&HI) amounted to around 24% of total expenditure in both 2002-03 and 2008-09, both households and from tax-payers.⁴⁹

Table 10.2 Health and Health Insurance Expenditure				
Area	2002-03	2008-09	% Ch	R % Ch
	\$ million			
Rural	12	8	-35	-54
Urban	21	27	31	-8
FIJI	33	35	6	-25
	As % of Tot HH Expenditure			
Rural	1.7	1.0	-44	
Urban	2.2	1.6	-27	
FIJI	2.0	1.4	-30	

355 Table 10.2 indicates however, that Health and Health Insurance Expenditure, declined in rural areas by a large 54% in real terms, and 8% in urban areas. In aggregate, there was a decline of 25%.

356 There was also a decline relative to Total Household Expenditure: in rural areas declining by 44% from 1.7% to 1.0%, and in urban areas by 27% from 2.2% to 1.6%.

357 These are very low sums being expended by households on what ought to be a priority spending area. The \$35 million on Health and Health Insurance may be compared with \$37 million spent on narcotics (alcohol, tobacco and yaqona), \$41 million on restaurants and holidays, \$38 million on personal care items, \$60

Table 10.3 Composition of H&HI Exp.			
Component	2002	2008	% Ch.
Prescribed Medicine	32	34	5
Other Pharm.Products	7	3	-55
Private Medical services	34	29	-13
Hospitalisation	2	1	-20
Health insurance	25	32	28
Total	100	100	

⁴⁸ While Health Insurance is not included as part of the division for Health Expenditure in the HIES, it is aggregated here for completeness of general health expenditure by households.

⁴⁹ The public expenditure data is from the Fiji Budget documents.

million for religious contributions, and \$58 million on mobile phone recharges. There needs to be a serious education campaign to encourage households to reconsider their spending priorities.

358 Table 10.3 indicates that the total household expenditure on health is roughly distributed as a third each to Prescribed Medicine, Private Medical Services, and Health Insurance. Note the extremely small proportion spent on hospitalisation: hospital fees at government hospitals usually do not cover even the costs of food and linen for hospitalized patients, who would cover these were they at home.

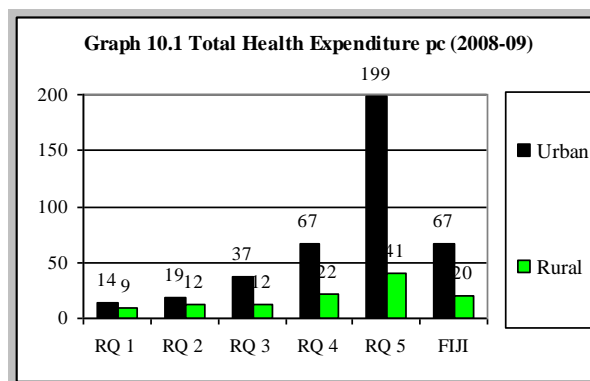
359 Between 2002-03 and 2008-09, there was a small 5% increase in the share of Prescribed Medicine, 13% decline in expenditure on private medical services which matches anecdotal evidence from GPs.

360 There has, however, been a surprising 28% increase in the share of Health Insurance. Does this suggest increasing public concern over the ability of public health care to deliver adequately and to consumers' satisfaction?

361 Given the long-held concerns about the health services in the rural areas, the following analysis disaggregates by rural and urban areas wherever useful.

362 Graph 10.1 drives home the large disparities between rural and urban households, and the poorest and the richest quintiles, especially in the urban areas.

363 Overall, private household expenditure is three times higher per capita in urban areas than in rural areas. Given that the bulk of publicly provided health care

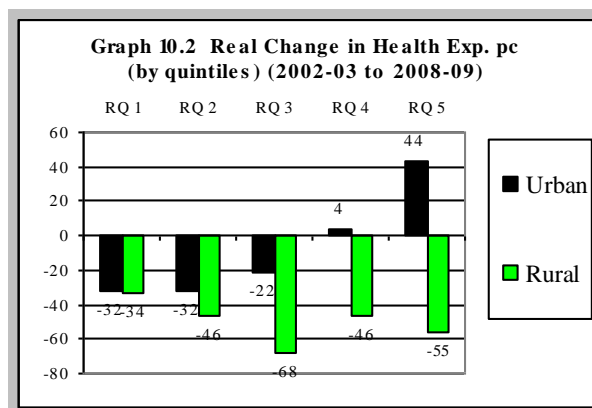


is urban-based, the lack of private expenditure in rural areas, would be widening the rural:urban gap.

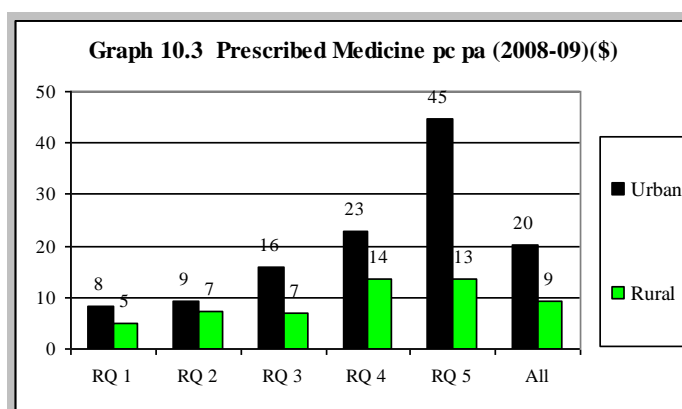
364 Rural expenditure per capita remained low for the first four quintiles, before rising slightly for the 5th quintile to \$41 pc, which was just over what was spent by the 3rd urban quintile. The total health expenditure is in fact totally distorted by the very large amount spent by the 5th urban quintile (\$199 pc) and the 4th urban quintile (\$67 pc).

365 Note however, that the bottom 2 urban quintiles also spend very small amounts pc – at just around \$14 and \$19 pc- again not impressive compared to their spending on narcotics in 2008-09 (section 9).

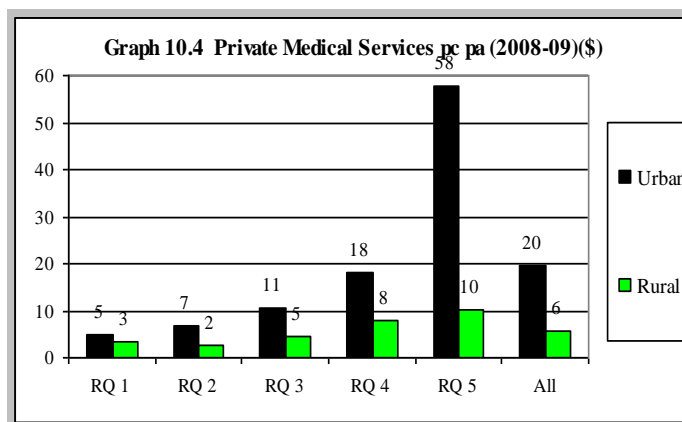
366 Graph 10.2 makes quite clear the real inflation-adjusted change in Health and Health Insurance Expenditure per capita, between 2002-03 and 2008-09. Only the top urban quintile saw any substantial increase (of 44%), the 4th urban quintile saw a small increase of 4%, while all other quintiles, rural and urban, saw significant decreases, with the largest being borne by the top 3 rural quintiles.



367 Graph 10.3 gives a good indication of the very small amounts that are spent on prescribed medicine by the bottom 60% of the rural people and the bottom 40% of the urban people (all less than \$10 per capita per year). The only groups that spend reasonable amounts are the top two urban quintiles.



368 The policy question that must be asked is: are the middle and lower quintiles spending so little because they do not need to, or because they cannot afford to, or because health expenditure is low on their list of priorities, or, in the case of rural people, because there are no suppliers in the rural areas?

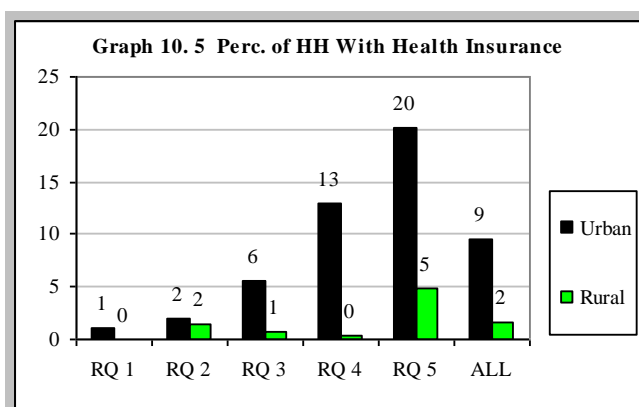


369 Exactly the same patterns are visible for expenditure on Private Medical Services pc pa. Virtually the only substantial expenditure is by the urban top quintile (at \$58 pc pa) and the 4th urban quintile (at a much lower \$18 pc pa). The rural values are all below \$10 pc pa for the bottom four quintiles and a mere \$10 pc pa for the top rural quintile.

- 370 Table 10.4 indicates the quite poor, and deteriorating coverage of Health Insurance. Some 8% nationally in 2002-03, the figure had reduced by a third to only 6% in 2008-09. The rural deterioration was even worse, declining by 66% from 5% to 2%, while urban households saw a reduction from 12% to 9%.

Table 10.4 Perc. of HH with Health Insurance			
	2002-03	2008-09	% Ch.
Rural	5	2	-66
Urban	12	9	-24
FIJI	8	6	-33

- 371 Graph 10.5 shows the extremely low coverage of health insurance in rural households in 2008-09 and the extremely steep gradient in urban households.



- 372 While 20% of the top urban quintile were covered, and 13% of the 4th quintile, the lowest 2 urban quintiles also had negligible coverage.

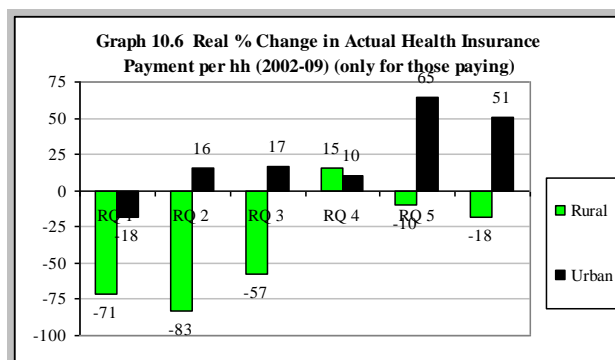
- 373 Table 10.5 indicates that for those households paying health insurance in 2008-09, the amounts were not particularly high being less than \$1000 per annum, with the amount rising only for the 5th quintile- to \$1306 for rural households and \$1495 for the urban Quintile 5.

Table 10.5 Health Insurance Payment per HH paying pa		
	Rural	Urban
RQ 1		403
RQ 2	436	622
RQ 3	223	729
RQ 4	495	803
RQ 5	1306	1495
	1042	1160

- 374 Graph 10.6 shows the real percentage changes (allowing for inflation) in actual payments made per household between 2002-03 and 2008-09. There were large decreases in the rural households in the bottom 3 quintiles, a small increase for quintile 3 and a moderate 18% decline for rural quintile 5.

- 375 These results are is fairly consistent with rural households reducing their discretionary expenditures on health insurance under economic pressure of declining real incomes.

- 376 Except for a small decline in payment in the lowest urban quintile, all other urban quintiles saw real increases in



unit payment per annum. There was an extremely large 65% increase for the top urban quintile (134% increase in nominal dollars).

- 377 **Recommendation 10.1** Given the small amounts being spent on health expenditures by the rural and urban poor, poverty stakeholders agree on the continuing need for subsidized health care for the poor.
- 378 **Recommendation 10.2** Poverty stakeholders discuss the need for households to increase their financial expenditure on health and health insurance and reduce it on non-essentials such as narcotics.
- 379 **Recommendation 10.3** Poverty stakeholders discuss the need for the poorest households to be covered by some form of health insurance scheme, perhaps by the ear-marking of a certain proportion of VAT revenues.
- 380 **Recommendation 10.4** Poverty stakeholders discuss the need to educate households who are able to afford paying for medicines and hospitalization charges, to share in related costs in order to reduce burdens on tax-payers.

11 Education

381 For the poorest in Fiji, the important issues in education are firstly access (attending school) and secondly, the quality of education, which depends on many factors such as the quality of teachers, facilities, libraries, and computers. However, private household expenditure on education can also be an important indicator of the education "boost" that is given to students by their parents.

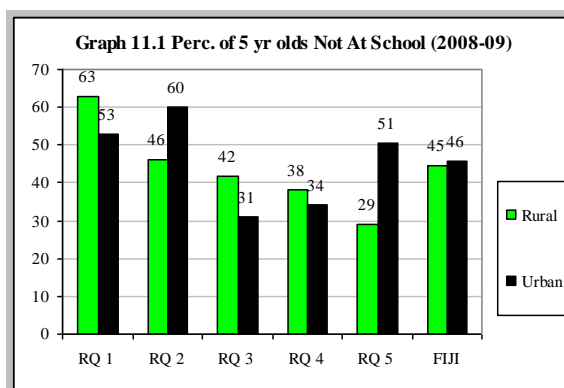
382 The HIES, although only a sample survey, is still able to give quite good information on school attendance (and non-attendance), private household expenditure on education at different levels: preschool, primary, secondary and tertiary, the distribution of educational qualifications across the quintiles, and average years of education of the older persons in the households (here arbitrarily taken as 18 years and over).

383 This section gives tables and graphs analyzing school drop out rates and unit expenditure per student at school by quintiles, and rural urban differentiation. In both these areas, there is evidence of the relative deprivation of the poorest families, with rural families invariably doing far worse than urban families, at all levels: pre-school, primary, secondary and tertiary. The evidence also shows that education is a key to getting out of poverty: the persons with higher qualifications are likely to be in the higher quintiles, while the higher quintiles tend to have higher average years of education (a common sense result).

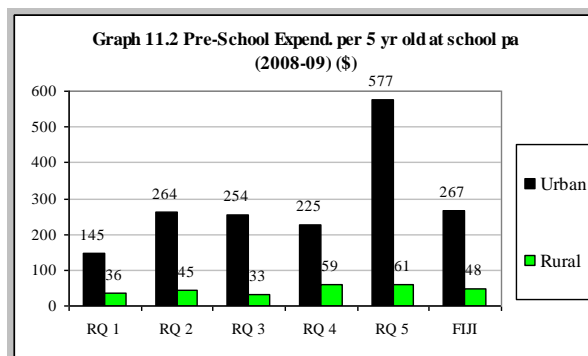
Pre-school or Early Childhood

384 Pre-school or Early Childhood Education is considered to be important not just for the children, but also for the mothers who are freed up to pursue career objectives in work or education and training. Graph 11.1 indicates the very clear pattern of high non-attendance of 5 year olds, amongst the poorer quintiles (63% Not At School for Rural Quintile 1) reducing significantly and steadily to only 29% for top rural Quintile 5.

385 The urban quintiles show high non-attendance at the two lowest quintiles (53% and 60% respectively for the 1st and 2nd quintiles) falling to the low thirties for Quintiles 3 and 4 (and oddly rising to 51% for Quintile 5). This last result needs some research and clarification: why are households in the top urban quintile have such a large proportion (51%) of 5 year olds, Not At School?

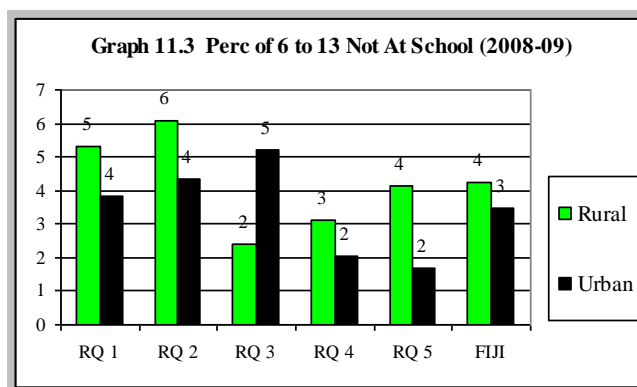


386 Graph 11.2 gives the stark expenditure picture that households in all rural quintiles, spent extremely low amounts on pre-school per 5 year old at school- rising from \$36 per year at Quintile 1 to \$61 per year at Quintile 5. The urban families on the other hand spent \$145 per year in the bottom quintile, over \$200 per year in quintiles 2, 3 and 4, and an extremely large \$577 per child in Quintile 5.



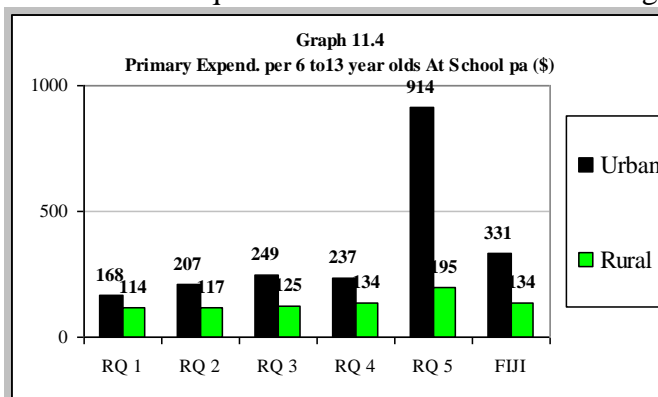
387 The data also indicates that there was a large 58% decline in real funding per rural pre-school child between 2002-03 and 2008-09, for all the rural quintiles, while there was a 26% increase for urban children in aggregate.

388 Given that the relatively higher expenditures in urban areas would tend to result in better quality teaching materials for the pre-schoolers, it is essential that government funds be directed towards greater financial assistance to rural early childhood education centers in rural areas so as to try to equalize the learning support between the rural and urban pre-schools.



Primary

389 While Fiji has long had a policy of universal access to primary school, that goal is still not being achieved for the poorest children. Graph 11.2 indicates that some 5% to 6% of rural children in the lowest two quintiles were not at school during the 2008-09 HIES. In the three lowest urban quintiles, some 4% to 5% were also not at school. The situation may have changed since then because of the recent introduction of subsidized bus-fares for school children but this needs to be confirmed.



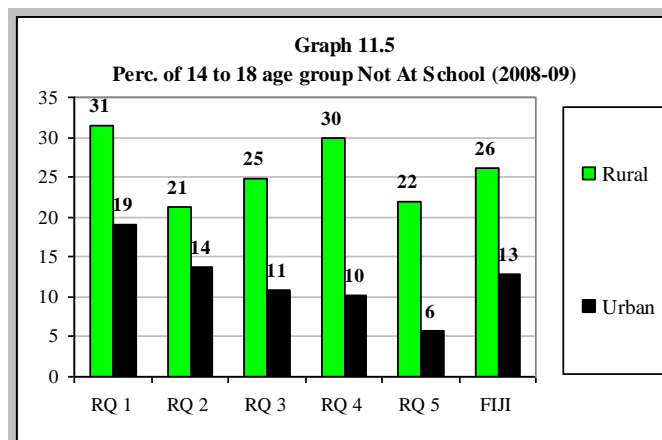
390 Graph 11.4 indicates the significant rural:urban differences in private household resourcing of primary age students. While the average for the urban top quintile

was extremely high at \$914 per student per year, that for the other four urban quintiles was \$168 for the lowest quintile, rising to around \$249 for quintiles 3 and 4. These amounts are around the same as what is spent on pre-school by these quintiles.

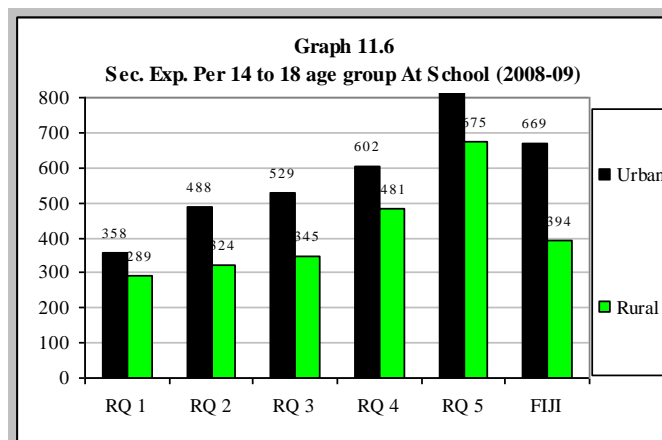
- 391 The private household resources for rural students was generally a half of that for the comparable urban quintiles, rising from \$114 per annum for rural quintile 1 to \$196 for rural quintile 5. To equalize the funding for rural students, Government would need to have a bias of more than \$100 per student (in 2008-09 prices) in favour of rural students.

Secondary

- 392 It is at the secondary level, however, that the impact on the poor becomes more pronounced both from the point of access and private household expenditure. Graph 11.5 indicates the very large proportions of the age group 14 to 18 (proxy for secondary schooling ages) who were Not At School during the 2008-09 HIES. The average for all rural quintiles was 26%, twice that of the urban average of 13%. All rural quintiles, however, had extremely high percentages Not At School, clearly having dropped out for various reasons. The major cause is likely to have been failing various examinations rather than financial reasons as there is no obvious gradient between the poor and rich rural quintiles.



- 393 There is however a very obvious gradient in the urban quintiles, with the poorest quintile having a 19% non-attendance, gradually dropping down to 6% for the top urban quintile.



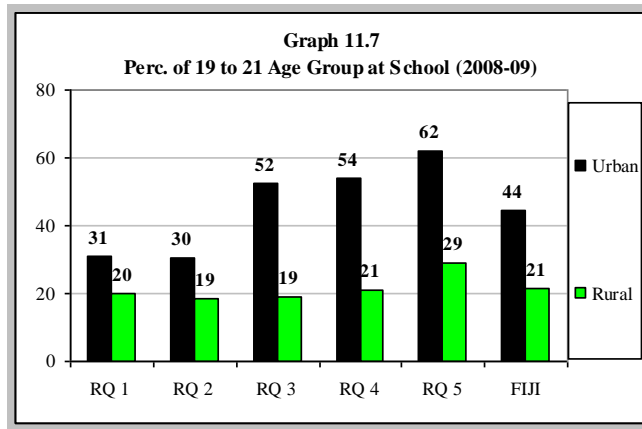
- 394 Graph 11.6 indicates the funding disparities at secondary school, with the urban expenditures rising rapidly from \$358 per student per annum in the first urban quintile to \$602 in the fourth quintile, and (off the chart) to \$1189 per student for the top urban quintile. The rural expenditures per students rise from a much lower \$289 per student in Rural

Quintile 1, to \$345 in Rural Quintile 3, before rising moderately to \$481 and \$575 per student in the 4th and 5th rural quintiles.

- 395 It seems clear that there needs to be substantial additional government funding per student in rural areas, to equalize resources between rural and urban counterparts.

Tertiary

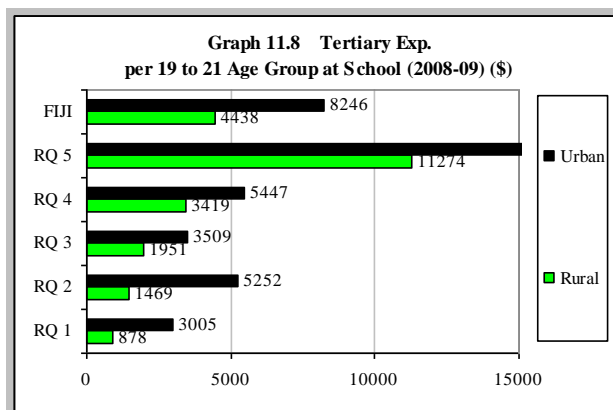
- 396 Since the coups of 1987 and thereafter, an important challenge facing Fiji has been the training and retention of tertiary trained persons facing increasingly more attractive emigration options. Ensuring that the maximum percentage of tertiary aged persons are able to receive tertiary training is therefore a priority.



- 397 Graph 11.7 indicates that there is a very large gap between the rural and urban households, with 44% of those aged 19 to 21 (proxy for tertiary age population) being at school in 2008-09, in contrast to only 21% of the rural counterparts.
- 398 The graph indicates that of the urban households, those in the lowest two quintiles, one and two, had only around 30% at school, compared with just over 50% for quintiles 3 and 4 and 62% for the top quintile.
- 399 Of the rural households, the proportions at school remain flat at around 20% right up till the 4th quintile. Only for the top rural quintile, does the proportion rise to 29%.
- 400 This data suggests that Fiji's tertiary age population are not seeing their full potential in tertiary training. This Report does not go into the reasons for these disparities between urban and rural households, nor the disparities between the lower poorer quintiles and the top quintiles. It is hoped that the graph substantiates the size of the gaps between rural and urban households, and that between the poorer and richer households.
- 401 Graph 11.8 indicates the very large disparities in tertiary expenditures per 19 to 21 old At School. The urban Quintile 5 value is way off the chart at \$25,433 per person At School, while the rural Quintile 5 value is also quite high at \$11,214.
- 402 At all quintiles, the rural value is way below the urban value. For Rural Quintile 1, it is a mere \$878 per person pa, rising slowly to \$3419 for Rural Quintile 4. The

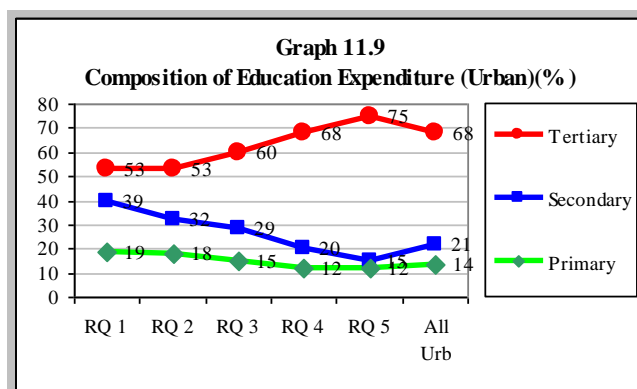
urban quintile values rise quickly to \$5252 for Quintile 2 and \$5447 for Quintile 4.

403 These are all quite high values, relative to the incomes of the households. Given that these are private household expenditures, they also indicate the great value that households now place on tertiary education, which is now well recognized as the passport to well-paying employment both in Fiji and abroad.

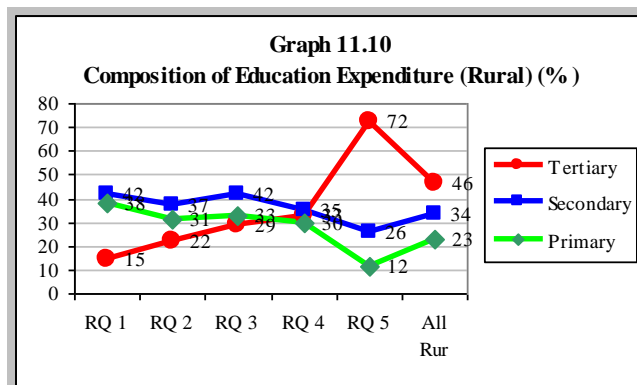


404 Given that the unit expenditure in the urban households take a step up even by the 2nd urban Quintile (which is relatively poor), it suggests that this is clear evidence that households are prepared to pay for services that they value. Even the urban Quintile 1 value of \$3000 is quite high relative to the average household income—roughly some 40%. Even in rural households, the unit tertiary expenditure amounts to some 20% of the average household income.

405 Any poor household (for example in the bottom urban quintile, and bottom 2 rural quintiles) having more than one person of tertiary schooling age, would find these expenditures extremely difficult to maintain out of their meager household incomes, especially after essentials such as food have been paid for.

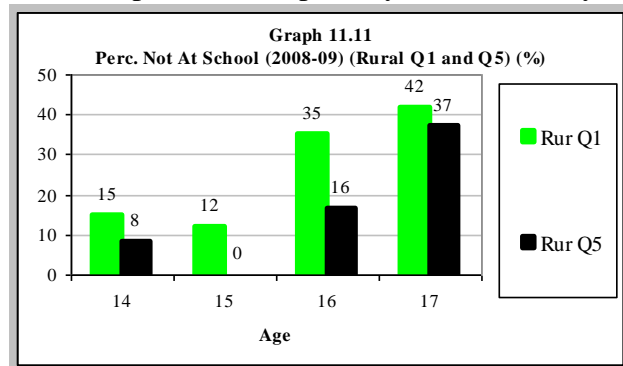


406 It is critically important therefore that access to tertiary education is facilitated by ensuring as a minimum that tertiary students have easy access to finance to pay for whatever fees are required by tertiary training institutions.

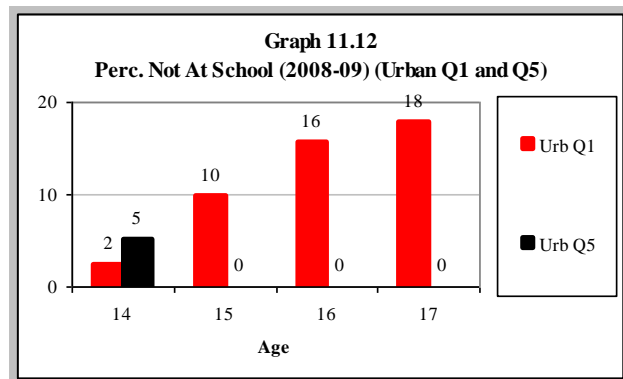


407 It may be noted that the patterns of expenditure are quite different for urban households (Graph 11.9), for

whom expenditure at tertiary levels is the most important at all quintiles, whereas for the rural households (Graph 11.10), expenditure at primary and secondary is more important than tertiary expenditure. This difference in patterns probably reflects the fact that the children from the poor fail to achieve optimum participation at the tertiary levels, as previously indicated, hence there are fewer proportions at school on whom financial resources need to be expended.

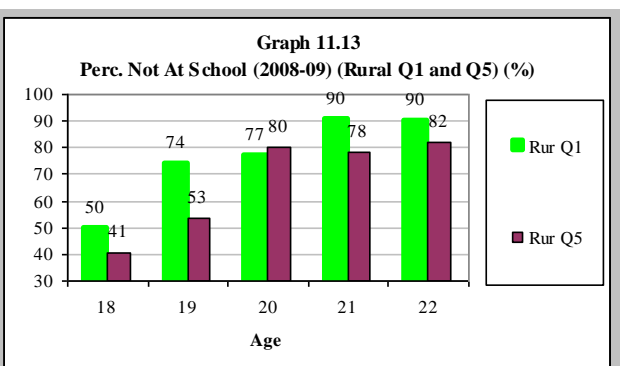


408 One last set of graphs is presented to indicate how quickly the children in the poorest quintiles drop out of school. Graph 11.11 shows quickly the children in the rural poorest quintile (RQ1) drop out of school with increasing age: 35% have dropped out by the age of 16, rising to 42% by 17.



409 Surprisingly, the rural top quintile (RQ5) also shows quite high drop-out rates of 16% at age 16 and 37% at age 17. The urban percentages may be somewhat on the high side to the extent that some proportion of rural students have moved to urban areas (staying with relatives) to attend urban schools.

410 Graph 11.12 shows high drop-out rates in the poorest urban households as well, though not as high as rural schools. In the poorest urban quintile, some 10% had dropped out by age 15, rising to 16% at age 16 and 18% age 17. These are quite high drop out rates, which need to be minimized for the poorest in urban areas.



411 Graph 11.13 shows again the gap between the poorest rural quintile and the top rural quintile. While the proportions Not At School are similar from ages 20 onwards, at age 18, 50% of the poorest RQ1 are not at school, compared to 41% of rural Q5. The drop-out is

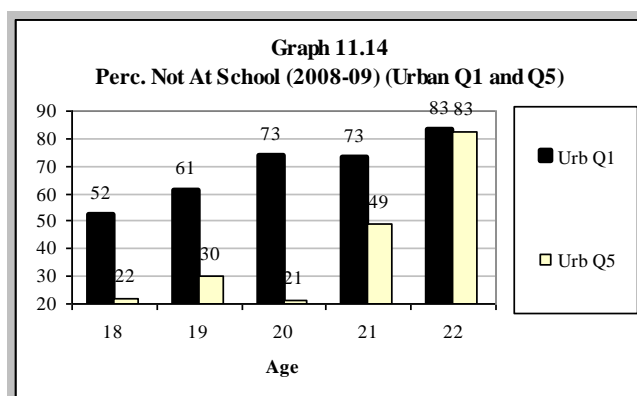
11 Education

higher at age 19, by which time 74% of the poorest quintile are not at school, compared to 53% of the rural top quintile.

412 Graph 11.14 indicates the sharp disparities in the urban households. For the poorest urban quintile (RQ1) the percentages Not At School rise rapidly from 52% at age 18 (only 22% for urban Q5), to 73% at age 20 (only 20% for urban Q5) and 73% at age 21 (only 49% for urban Q5).

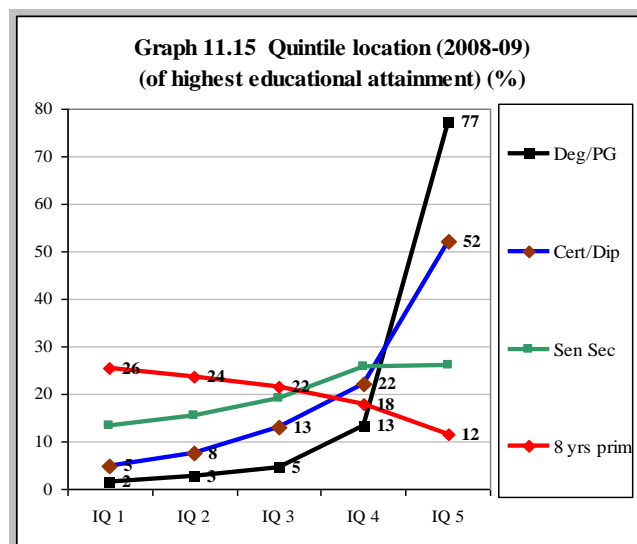
413 These graphs indicate quite clearly how large proportions of the poorest households are not able to keep their children at school for a variety of reasons, thereby reducing their overall education levels, which then feeds through into lower incomes throughout their lifetimes. It is critical to examine what factors are leading to students dropping out of school from secondary school age onwards.

414 Where the primary factors are financial hardships, then clearly there has to be more provisions made by government budgets to ensure that schools are not pressured to refuse students who are not able to pay fees.



415 Where the factors are failure to pass the required examinations, then the causes of higher failure rates amongst the poorest children need to be identified and tackled.

416 It is useful to also examine the impact of education on poverty.



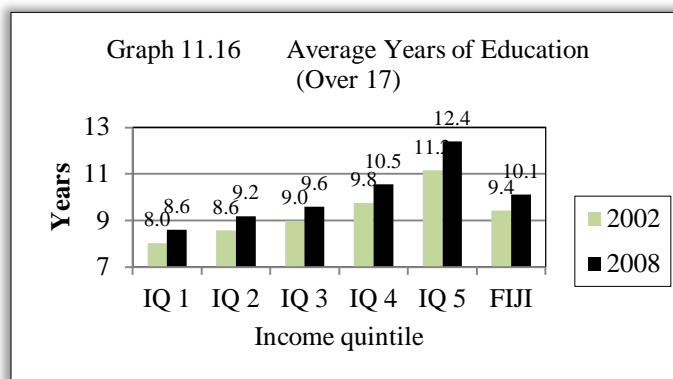
417 The 2011 World Bank Report on Poverty Trends in Fiji tried to get a handle on the impact of education by examining the level of educational attainment of only the “Head of Household”. Of course, that would be one factor in influencing the poverty level of the household. However, it is far more useful to examine the education level of all the individuals in the household, as it is the aggregate income of all the productive members of the

household that contributes to the total household income, and the Income per Adult Equivalent that determines the poverty ranking of the household.

418 Graph 11.15 shows the clear advantage for individuals to have degree or post-graduate qualifications, with some 77% of them ending up in the top quintile, and 13% in the 4th quintile (ie 90% in the top 2 quintiles) . For those with Certificate and Diploma, 52% were in the top quintile, and 22% in the 4th quintile (i.e. 74% in the top 2 quintiles).

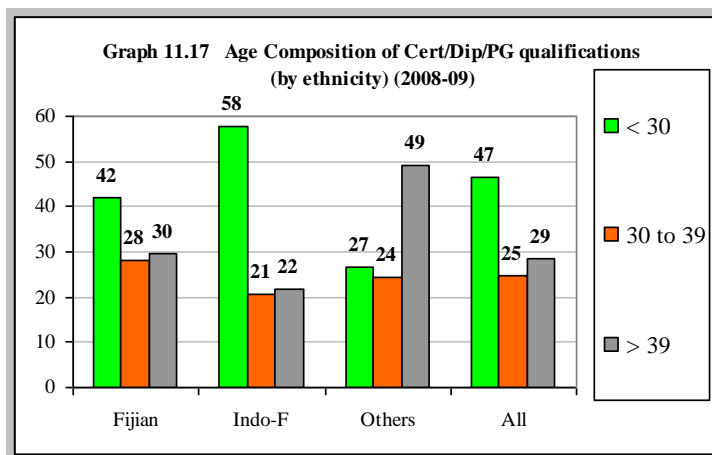
419 In contrast, of those with only 8 years of primary education, only 12% were in the top quintile and 18% in the 4th, or 30% in the top 2 quintiles.

420 Another perspective on the association of education with poverty status is given by Graph 11.16 which gives the average years of education of those aged over 17, by national quintile level. There are two interesting results evident from the graph.



421 First, there is a clear trend of rising averages with rising quintiles: for 2008-09, the average years of education steadily rises from 6.7 years at quintile 1 to 10.0 years for quintile 5.

422 Second, there have been small improvements between 2002-03 and 2008-09 at all quintile levels, of about 7% at the bottom three quintiles, but a large improvement of 11 percent at the top quintile. This improvement is evident, despite the continuing high levels of emigration that results in a loss of the most educated persons in the economy. The improvements would of course, have been much higher had the emigration been significantly lower.



- 423 It seems that the education system has been able to cope to some extent with the departing skilled personnel in filling places, although fresh graduates cannot of course be expected to have the experience and productivity that mature graduates would have.
- 424 Some idea of the decline in experience may be seen in an ethnic age comparison of education achievements as given by Graph 11.17. Indo-Fijian emigration since 1987 has been roughly five times greater than that of indigenous Fijians.⁵⁰ The percentage of Indo-Fijians with Certificates/Diplomas/Degrees/PG qualifications is extremely high for the under 30years of age group- at 58% compared to only 42% for indigenous Fijians. On the other hand, the percentage over 30 is around 21% compared to 30% for indigenous Fijians. The older and more experienced Indo-Fijians have largely emigrated, leaving the younger less experienced persons.
- 425 **Recommendation 11.1 Poverty stakeholders strongly urge greater budgetary allocations for rural pre-schools- setting up the required classes, and hiring the required trained teachers for the rural areas, to reduce the enrolment gap with urban areas.**
- 426 **Recommendation 11.2 Poverty stakeholders strongly urge greater budgetary allocations for rural pre-schools so as to improve facilities and pedagogical materials and close the private funding gap between urban and rural pre-schools.**
- 427 **Recommendation 11.3 Priority be given to the encouragement of higher pass rates in rural secondary schools so that adequate entry may be made to tertiary training institutions.**
- 428 **Recommendation 11.4 Thorough research be undertaken to identify the causes of the high drop-out rates in the poorest households, in both rural and urban areas.**
- 429 **Recommendation 11.5 Where the causes are identified to be related to financial hardship, budgetary provisions, such as fee subsidies and easy access to cheap loans, be made to ensure that schools are not forced to reject students not able to pay fees.**
- 430 **Recommendation 11.6: Where the cause of high drop-out rates is failure at required examinations, then the causes of the poorer academic performance of the drop-outs be addressed, while failing students be give opportunity to repeat.**

⁵⁰ Note however that in the last few years, indigenous Fijian emigration has also increased.

12 Profiles of poor households: employment, and gender

431 Most poverty studies attempt to give a profile of the “poor” households. Given the way that the HIES data is constructed and made available to outside consultants, the usual approach is to examine the poverty status with reference to the characteristics of the “Head of Household”. This is the approach taken by the World Bank (2011) which attempted to examine the association of poverty with the characteristics of the Head of Household, such as gender, education level or employment status.

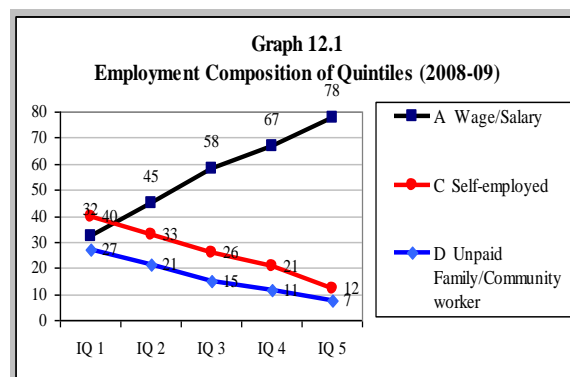
432 While this method has its merits, there are also inherent weaknesses. First, it seems that for the Fiji HIES, both in 2002-03 and 2008-09, the “Head of Household” is not defined by any particular characteristic such as the person with the higher income, or education or decision-making role but by asking “who is the Head of Household”? The data suggests that the Head of Household is designated as a female only when the male spouse is absent.

433 Second, the education level of the Head of Household is not particularly correlated with the education, qualifications and income earning capacities of the rest of the household. Especially in the Fiji situation, many of the middle-aged people may not have had the opportunity to acquire formal education qualifications, but may still be designated as “Head of Household” because of seniority. Thus the employment status of the Head of Household is not necessarily the “highest” status person in the family having the largest influence on household decisions.

434 Examining the poverty status in relation to the characteristics of the Head of Household (as is done by WB (2011) and other poverty studies) is therefore not as useful as examining the characteristics of all the adult individuals in the household in relation to the poverty status of the household. For the 2002-03 and 2008-09 HIES data, this information is available at the “person” level in the “demographic” characteristics file.

The individual data therefore needed to be related back to the poverty characteristics of each person's household, as determined by the estimated Income per Adult Equivalent.

435 In 2008-09, Wages and Salaried persons were some 58% of all the employed persons, Self-employed persons were 25% and Unpaid Family/Community workers were about 16% of all working people (table not given here). Their distribution in the national quintiles are quite opposite however.

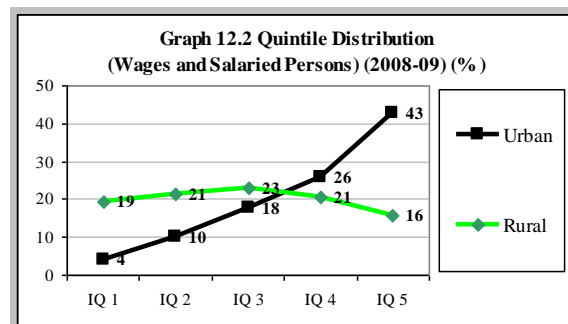


12 Profiles of poor households: employment and gender

436 Graph 12.1 indicates that the proportion of Wages and Salaried persons rises with the quintiles, comprising 32% at Quintile 1 but rising steadily to 78% of the top quintile. The proportion of Self-employed persons and Unpaid-Family and Community workers however steadily falls with the rising quintiles.

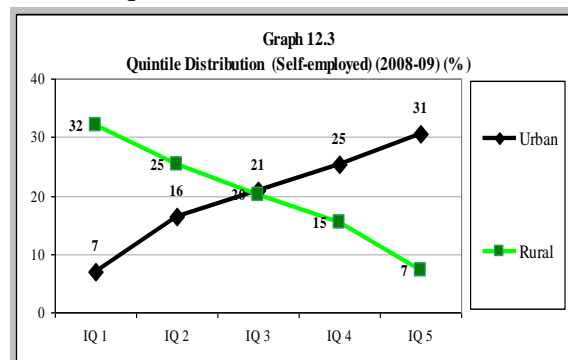
437 The national aggregate picture however disguises the sharp contrast that exists between the rural and urban areas with respect to these employment categories.

438 Graph 12.2 shows that in the rural areas (in green), Wages and Salaried persons are distributed fairly evenly throughout all the quintiles. It may be said with confidence that the rural workers in the upper quintiles would largely be those working for the public sector and large corporations, while those in the lower quintiles would be informal sector workers.



439 In urban areas, a mere 4% of Urban Wages and Salaried persons are in the 1st quintile and 10% in quintile 2 (likely to be those in the informal sector) while 43% are in the top quintile and 26% in the 4th quintile.

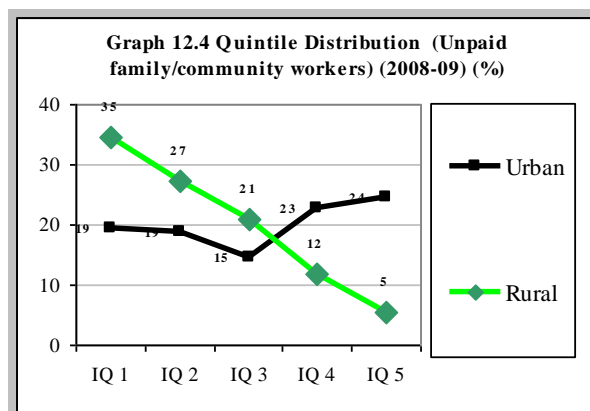
440 Graph 12.3 shows the completely opposite patterns of distribution of Self-employed persons for rural and urban areas. Only 7% of the urban Self-employed were in Quintile 1, rising steadily to 31% of Quintile 5. In the rural areas, some 32% of the Self-employed were in Quintile 1, falling steadily to 7% in Quintile 5. The rural self-employed are largely in the lower quintiles, while the urban self-employed tend towards the upper three quintiles



441 Similar statements may be made about Unpaid Family and Community workers. Urban Unpaid Family and Community Workers are distributed evenly throughout the quintiles. The rural Family and Community workers have relatively higher proportions in the lower quintiles and lower proportions in the top quintiles.

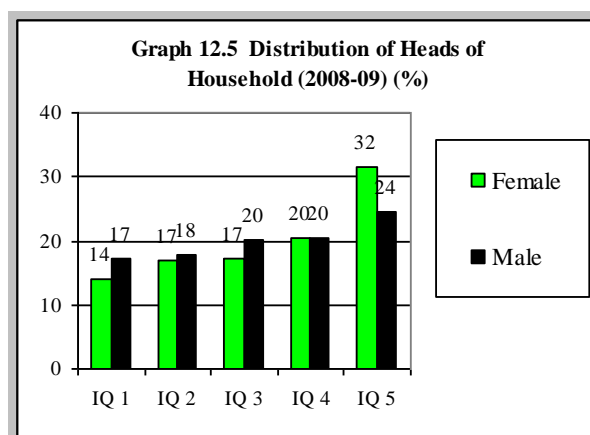
12 Profiles of poor households: employment and gender

442 Rural Employers are distributed evenly through all the quintiles, slightly higher proportions in the lower quintiles and lower in the upper quintiles (graph not shown here). Urban employers on the other hand are distributed evenly throughout the quintiles.

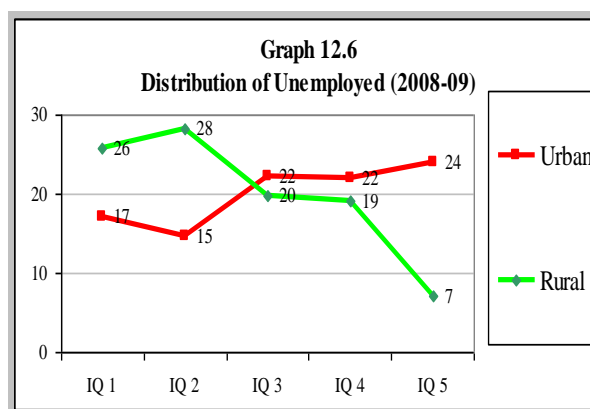


443 The above 4 graphs illustrate clearly the dangers of generalizing about employment categories from national aggregate data. In nearly all cases, the rural employment categories are far worse off than their urban counterparts.

444 Graph 12.5 indicates that a slightly higher proportion of female-headed households (some 32%) were in the top income quintile, compared to 24% of male-headed households.



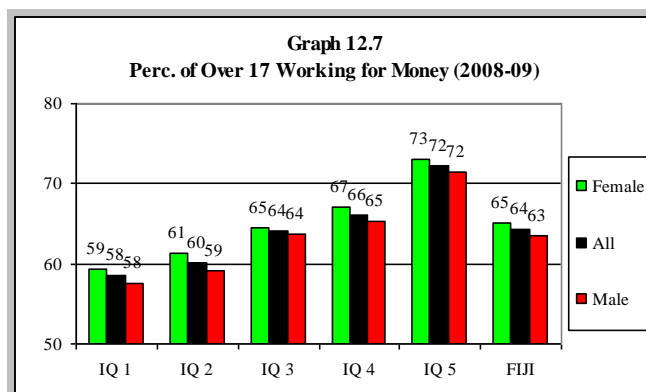
445 Graph 12.6 gives again the rural:urban differences in the distribution of the formally Unemployed. While the bulk of the rural unemployed are in the lower quintiles with only 7% in the top quintile, the urban unemployed are inversely distributed with 24% in the top quintile and a somewhat lower 17% in the bottom quintile. The category of "formal unemployment" does not adequately address the serious problem of real unemployment, or more accurately, "under-employment" in Fiji.



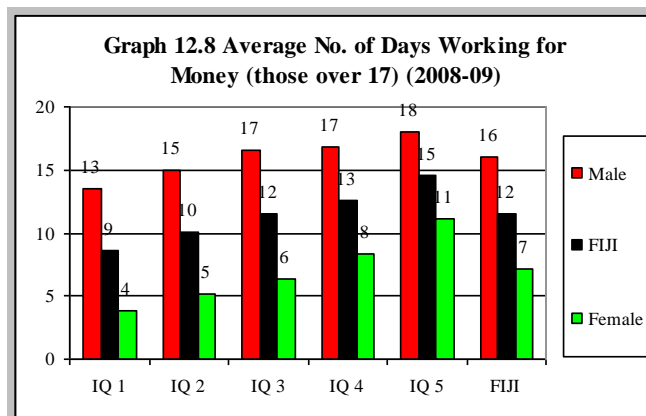
446 An extremely useful perspective is therefore obtained by examining the distribution of those who stated that they were Working for Money, and the number of days in the month they said they worked for money.

12 Profiles of poor households: employment and gender

447 Graph 12.7 gives the expected trends that the percentages of both Males and Females Working for Money rises with the rising quintiles- around 58% in Quintile 1 rising to 72% in Quintile 5. Oddly, the percentage for females is slightly higher than that for Males.



448 The real interesting trends are however to be seen in Graph 12.8 which gives the Average Number of Days in the month worked for those aged Over 17. For Fiji as a whole, the average days in the month worked was only 9 in quintile 1 rising to 15 in quintile 5. The average for Fiji as a whole was only 12 per month.



449 Given that theoretically, full-time working persons should be working some 21 days or so in the month, these averages suggest a very high degree of underemployment in Fiji and effective unemployment, as was indicated in an earlier study (Narsey 2007b).⁵¹

450 Graph 12.8 also brings out the very significant gender differences. Overall, females over the age of 17 worked for money on average only 7 days, while males worked for 16 days. In Quintiles 1, 2 and 3, females worked for money on average for only 4, 5, and 6 days respectively compared to the 13, 15 and 17 days for males.

451 Females working fewer days for money therefore are a large part of the explanation of the poverty status of households in the lower quintiles.

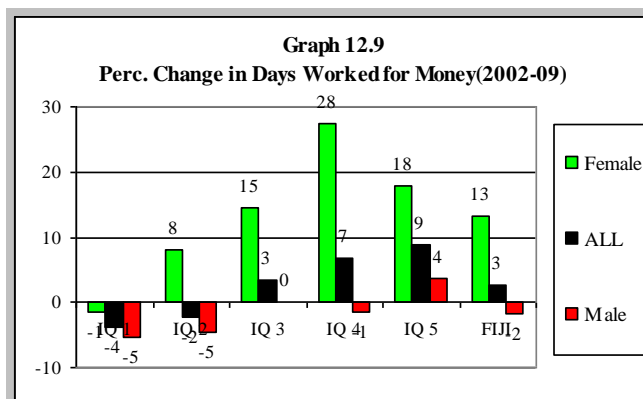
452 Graph 12.9 brings out the relatively good news for women in that for Fiji in aggregate, between 2002-03 and 2008-09, females had a much higher 13% increase in the average number of days in the month working for money, while Males had a -2% reduction. Moreover, the progress for females was generally

⁵¹ When the true state of under-employment was taken into account, the real rate of unemployment was found to be around 26% rather than the 8% to 12% level of formal unemployment often quoted. Working for money of course does not include those fully involved in the subsistence sector.

12 Profiles of poor households: employment and gender

much higher in the upper quintiles (18% in Quintile 5 and a very high 28% in Quintile 4) than in the lower quintiles.

453 Females in the lowest quintile suffered a small reduction in the average number of days worked for money, as also did males in the bottom 2 quintiles.



454 **Recommendation 12.1:** Stakeholders emphasize the importance of female gainful employment for money, as an important part of poverty reduction strategies.

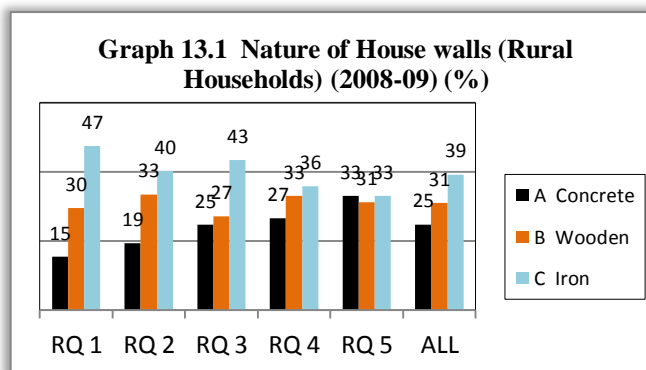
455 **Recommendation 12.2:** The Fiji Bureau of Statistics make a special effort to obtain better information on under-employment from future HIES to ensure that poverty status is better related to the nature of employment of members of the household.

13 Household assets

- 456 While the core of poverty analysis is household incomes and expenditures, the multidimensional nature of poverty (emphasized in Section 2) requires that poverty of households also be examined from the point of view of other household characteristics, such as household assets and household services, which contribute to perceived "standards of living": the quality of housing; services such as electricity, water and sewerage; household assets such as cars, washing machines, fridges; television, computers, mobiles, and outboard engines. While space limitations discourage covering all these variables, this section gives a few poverty profiles in some of the key areas of interest.
- 457 Readers are reminded that the 2007 Census will give far more detailed and accurate information on many of these aspects, although not differentiated by income levels.
- 458 It should be noted that statistics on some of the household assets, such as washing machines or cooking stoves, can also give a perspective on the gender dimensions of household expenditure (or lack of it) on items which have a larger bearing on women's standard of living in the household.
- 459 It should be noted for future HIES that there needs to be increased emphasis on obtaining information on household durables that improve the standard of living for those who do unpaid work within the households, largely women, but men also.⁵²

Housing

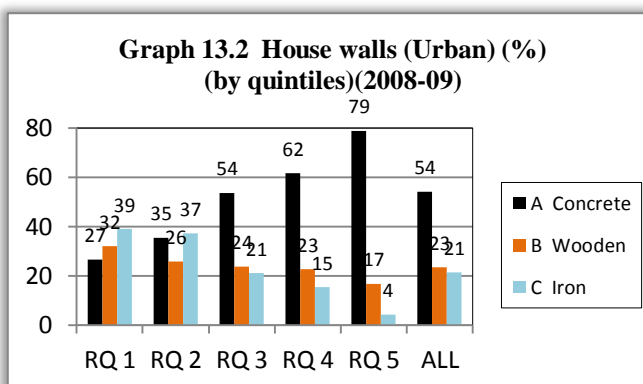
- 460 The quality of housing is an important aspect of the quality of life of households. While the 2007 Census 2007 will give far more accurate data on the state of housing throughout Fiji, it will not have a break-down by income groups as is possible using HIES data.
- 461 Graph 13.1 indicates that while 39% of all rural households lived in houses with tin walls, the poorest three quintiles in the rural areas had much higher percentages: 47%, 40% and 43% respectively. There was no particular income pattern for houses with



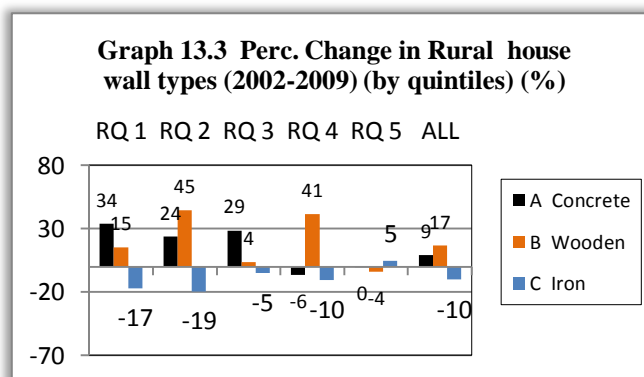
⁵² There needs to be questions asked, for instance, on kitchen durables such as microwaves and food processors.

wooden walls (roughly 25% to 30%), although the percentages with concrete walls showed a steady rise from 15% in Quintile 1 to 31% in Quintile 5. It is clear that houses with concrete walls are the preferred houses as incomes rise.

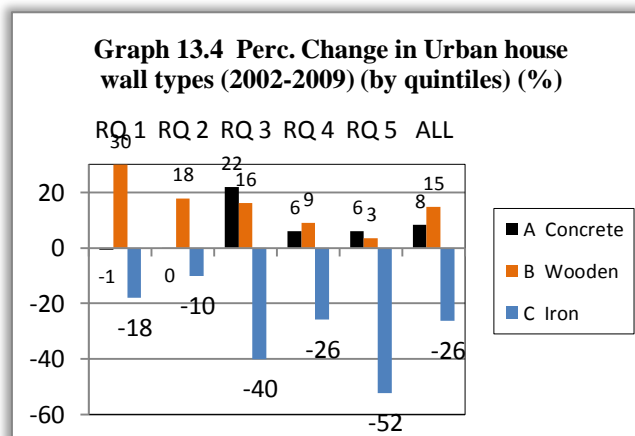
- 462 Graph 13.2 shows the contrast with urban areas, where 54% of all houses had concrete walls. There is also a very clear trend of percentages of concrete walls steadily rising from 27% in the lowest quintile (Quintile 1) to 79% in Quintile 5. The lowest two urban quintiles still had the largest percentages living in houses with iron walls- 39% and 37% respectively, although this had dropped to 4% by Quintile 5. Interestingly, there is a downward trend of urban houses with wooden walls, declining from around 27% at the lowest quintile to around 17% at the top quintile.



- 463 Graph 13.3 indicates the percentage changes taking place in wall types in rural households. In aggregate, wooden wall types increased by 17%, concrete wall types by 9% while iron wall types decreased by 10%. These are very positive developments in rural housing even in this short five year period.



- 464 What is more encouraging for the poor is that there were clear increases in concrete wall types of 34%, 24% and 29% respectively for the first, second and third lowest rural quintiles. There were also large increases in wooden wall types- 17% in aggregate, but very large 45% for quintile 2 and 41% for quintile 4. Conversely,



13 Household Assets

the poorest two quintiles saw reductions in iron wall types of -17% and -19% respectively.

465 Graph 13.4 shows that in urban areas as well, there was a strong 15% increase in houses with wooden walls, 8% increase in houses with concrete walls, and a -26% decrease in houses with iron walls. Again encouraging is the strong trend of the poorest urban households seeing large increases in the percentage of houses with wooden walls- by 30%, 18% and 22% respectively for the first, second and third poorest quintiles. At the middle and upper end, the increases were in houses with concrete walls, while all quintiles saw large declines in the houses with iron walls.

466 Looking at the absolute increases in house types, overall there were about a third more extra houses with concrete walls in 2008-09 compared to 2002-03, than wooden wall houses. In the poorest quintiles, there was a clear preference for wooden wall houses rather than concrete wall houses, possibly driven by cost factors.

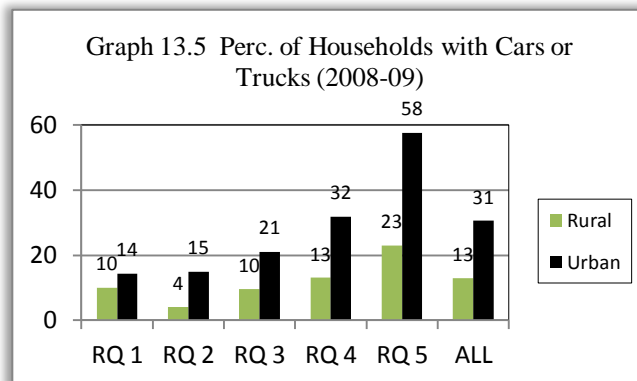
467 There are interesting policy questions which are raised by the possibilities of the growing mahogany industry outputs contributing more to the use of housing materials for the poorest households, thereby saving on foreign exchange for iron and other building materials. It is understandable that given Fiji's history of cyclones, most households have preferred to make houses with concrete walls, and while some rich households may prefer to have some internal walls made of attractive wood, the preferred wall material is still concrete given that it also sound-proofs rooms compared to wooden walls, and is less of a fire risk.

468 **Recommendation 13.1 Poverty stakeholders identify the factors that currently determine the wall-types of new houses in order to better formulate housing policy for the poor.**

469 **Recommendation 13.2 Poverty stakeholders recommend that the appropriate government departments examine strategies for the greater use of local mahogany wood in the construction of houses for the poor, without sacrificing safety in cyclones, fire risks, and cost-effectiveness.**

Cars and trucks

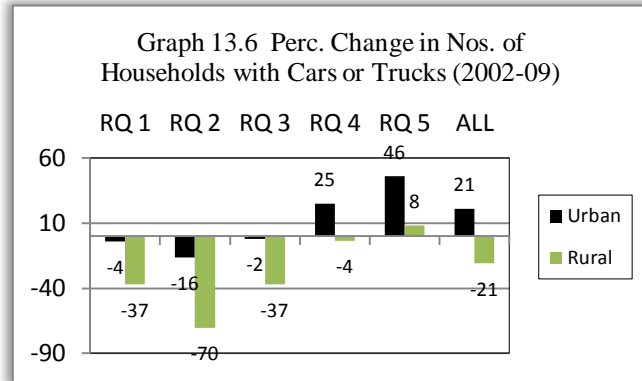
470 Graph 13.5 gives a good perspective on the lack of household-owned transport in the poorest quintiles. Of rural households in particular, 10% or less of the bottom 3 quintiles had a car or a truck.



471 While the poorest urban quintiles had somewhat higher percentages (14% and
15% for the first two quintiles) it has to be remembered that the urban poor have
reasonably good access to public transport such as buses and taxis. Rural
households, on the other hand, are totally dependent on quite infrequent and
expensive public transport.

472 Graph 13.6 gives some very unusual changes taking place between 2002-03 and
2008-09. While overall there was a 21% increase of households having cars or
trucks in urban areas, the increases were in the top two quintiles, while the bottom
three saw some decreases.

473 Rural households had a -21%
decrease in cars or
households, with the largest
percentage declines taking
place in the bottom three
quintiles, and a small 8%
increase in the top rural
quintile.



474 As percentage changes can
be somewhat misleading,
Table 13.1 gives the changes in numbers of households with cars and trucks
between 2002-03 and 2008-09. As may be seen all the rural quintiles, except the
top Quintile 5, saw reductions in numbers of households with cars or trucks.
There were also small reductions in the lowest three urban quintiles, while there
were large increases only in the top two urban quintiles.

475 These changes, especially in the rural areas, suggest a significant worsening of
transport-related standards of living for large numbers of households. Having
own household transport not only may indicate a reduction of commercial
advantage (whether transport of produce or travel to work), but also a lessened
feeling of security with respect to being able to deal quickly with health and other
emergencies

which quite
quick recourse
to transport, not
readily available
commercially.

Table 13.1 Changes in numbers of cars or trucks (2002-09)						
	RQ 1	RQ 2	RQ 3	RQ 4	RQ 5	ALL
Rural	-850	-1465	-933	-91	389	-2950
Urban	-94	-454	-72	1175	4158	4713

476 It would be important for stakeholders to ascertain exactly what are the factors
that have led to the apparent reduced ownership of own transport.

477 **Recommendation 13.3** Poverty stakeholders request an inquiry into the
following factors (or some combination of them) which may explain the
apparent decline in the numbers of households with cars or trucks: reduced

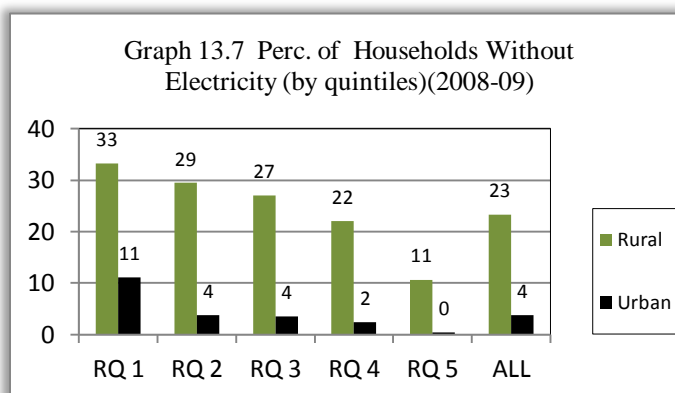
economic well-being, the high increases in the prices of cars/trucks and parts; increased stringency by the Land Transport Authority; the deteriorating state of the rural roads.

- 478 **Recommendation 13.4** Based on the findings, the review recommend measures to encourage greater ownership of own transport, especially in rural areas. Measures could include reduced duty on car/truck parts, judicious relaxation of LTA regulations without compromising safety, and better road maintenance schedules and financial allocations.

Electricity

- 479 One of the most critical infrastructure advantages that urban households take for granted is a stable supply of electricity, which facilitates other advantages such as lighting for students, television and video facilities, computers, fridges, stoves and microwaves, washing machines, electric fans and air conditioning, kitchen implements such as food processors etc. These all lead to many comforts of life which in developed countries are seen as necessities. The absence of a regular supply of electricity is one of the strong push factors which encourage rural people to emigrate to urban areas.

- 480 Graph 13.7 indicates how disadvantaged the poorest rural people are, with 33% of households in the lowest quintile not being connected to electricity, 29% of quintile 2 and 27% of quintile 3. Even in the top rural quintile, 11% were not connected to electricity.



- 481 Somewhat surprising, some 11% of the bottom urban quintile also was not connected to electricity in 2008-09.

- 482 It is important to point out that there is progress being made in the numbers of households with

Table 13.2 Change in Numbers of Households With Electricity (2002-03 to 2008-09) (numbers of hh)						
	RQ 1	RQ 2	RQ 3	RQ 4	RQ 5	ALL
Rural	914	1723	1245	2398	2029	8308
Urban	3583	3298	2546	3935	4972	18334

electricity. Table 13.2 shows however, that there were more than twice as many households gaining electricity in the urban areas, compared to the rural areas. As important, for rural areas, the bulk of the connections seems to have gone to the

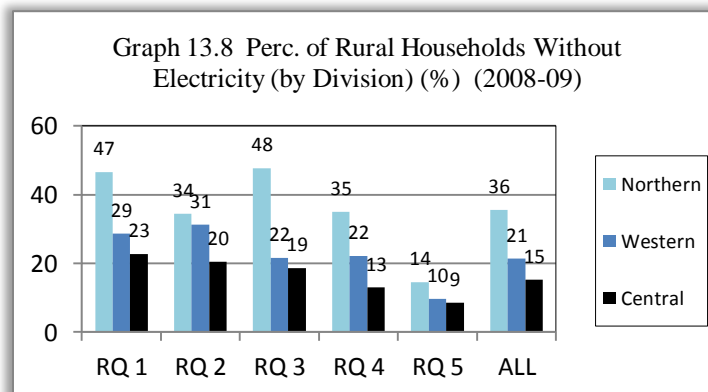
13 Household Assets

relatively well-off households in the top two quintiles, with the poorest rural quintile gaining the smallest number.

483 This is one of the household characteristics which have very significant divisional differences, for rural households.

484 Graph 13.8 indicates the poor state of electrification of rural Northern households with 36% in aggregate not connected, but a much higher 47% in rural Quintile 1, and 48% in rural Quintile 3.

485 Rural electrification is one of the intractable rural development challenges, as many rural communities are extremely scattered, and the provision through a regional grid by Fiji Electricity Authority or any other agency, would be inevitably cost-inefficient. The grid would be horrendously expensive to maintain, while the usage demand would be far too low to justify the infrastructure.



486 It is urgent for government to investigate an innovative mix of alternative sources of electricity, such as solar and diesel generators. Government should not flirt with the many renewable energy sources which are at an experimental stage (and for whom there is an unlimited supply of "salesmen"), but focus on proven reliable sources (such as solar panels for lighting), whose usage may be encouraged through small financial subsidies.

487 **Recommendation 13.5: Government investigate fiscal and import duty policies to encourage rural communities to obtain reliable electricity through alternative sources such as diesel generators and solar panels, where provision through national grids are not cost-effective. An extra special effort needs to be made for rural households in the Northern division.**

Washing machines

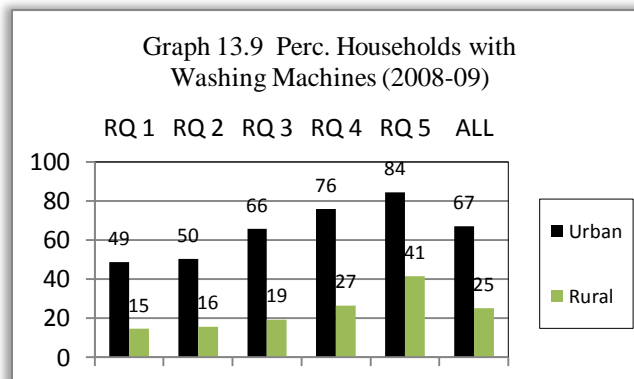
488 While it is tempting (and useful for some purposes) to give tables of households with and without washing machines only for those with electricity, such tables would not reveal the true extent to which household groups in general do not enjoy these particular household assets. It should therefore be kept in mind, that many households in rural locations especially, may not have electrical appliances because there is no regular supply of electricity. Of course, well off rural

13 Household Assets

households may have electrical appliances which run off household diesel generators which are run for short periods in the day.

489 Graph 13.9 gives the large disparities between rural and urban, as well as the poor and rich households in the ownership of washing machines.

490 While only a quarter of rural households had washing machines, in the bottom 40% of the rural population only 15% to 16% had washing machines, with the proportion rising to 41% for the top rural quintile.



491 That latter percentage was still lower than the two lowest urban quintiles, of whom roughly 50% had washing machines. This result of course would suggest that large proportions of the labour time of women in poor households had to be used up in the manual washing of clothes, while some 75% of rural households would require manual washing, with 85% of the poorest rural 40%.

492 There are however positive changes taking place. Table 13.3 indicates that while there were more than twice as many washing machines acquired by urban households compared to rural households (and mostly in the upper urban quintiles), the poor households were also acquiring them in large numbers. Naturally, the urban poor acquired far more than the rural poor (for example three times as many in urban quintile 1 compared to rural quintile 1 (top half of the table), the percentage increases in the proportion with washing machines (bottom half of the table) were significantly higher for the poorer quintiles, with the largest percentage increases taking place in the rural bottom two quintiles.

Table 13.3 Changes 2002-03 to 2008-09 (numbers and Perc.)						
	RQ 1	RQ 2	RQ 3	RQ 4	RQ 5	ALL
Change in numbers						
Rural	1421	1317	1323	1888	3229	9178
Urban	4514	3227	4615	5343	6369	24069
Perc. Change in proportion with washing machines						
Rural	213	121	70	46	50	67
Urban	118	46	50	27	17	38

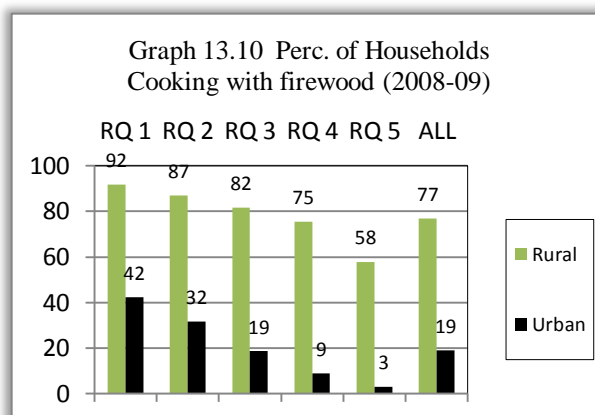
493 **Recommendation 13.6:** Government investigate fiscal and import duty policies to encourage poor households to purchase basic washing machines which can reduce the burdens on women of manual washing of clothes.

Cooking with Firewood

494 Graph 13.10 gives the quite remarkable fact that extremely large proportions of households still use firewood for cooking, more than 80% in the bottom three rural quintiles, but also more than a third in the urban bottom 2 quintiles.

495 Graph 13.10 needs to be taken together with Table 13.4 which indicates that there has been a dramatic decrease between 2002-03 and 2008-09 in the use of kerosene for cooking purposes, no doubt because of the very high increases in imported fuel costs. Very large decreases have taken place at all quintile levels, in both rural and urban households, but especially in rural areas.

496 With there being very little change in the numbers of stoves⁵³ (electric and gas), the implication of Graph 13.10 and Table 13.4 is that there may have been a dramatic increase in the usage of firewood for cooking purposes. This may also have been encouraged by the recent expansion of mahogany sawmilling, there have been increasing volumes of mahogany off-cuts coming as firewood on the market.



497 Given that very few households have efficient wood-stoves, it is quite likely that those persons associated with cooking with firewood (mostly women and girls) are being increasingly subject to the health hazards (eyes and breathing) of smoke from open fires, especially in the poorer quintiles in rural and urban quintiles.

498 Fiji has seen many campaigns in the past for the encouragement of "smokeless stoves", usually constructed from cement. They have, however, been typically fragile, not long-lasting and not "user-friendly" as the good iron wood-stoves typically are. Good wood-stoves made of iron are unfortunately extremely expensive and unlikely to be marketable amongst poor Fiji families.

Table 13.4 Perc. of Households Cooking with Kerosene						
	RQ 1	RQ 2	RQ 3	RQ 4	RQ 5	ALL
2002-03						
Rural	35	50	57	61	67	55
Urban	75	80	70	65	40	64
2008-09						
Rural	6	9	14	18	17	14
Urban	43	43	41	31	12	32

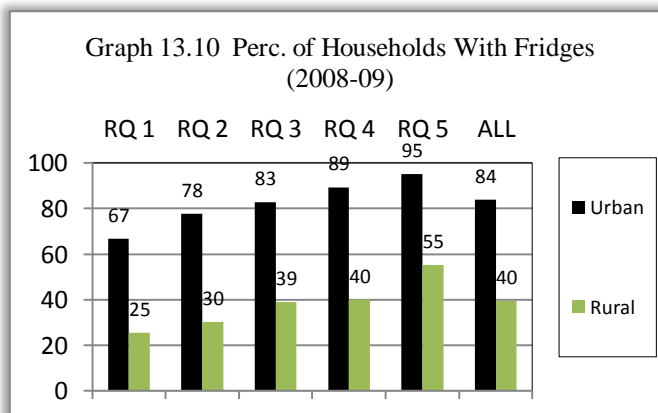
⁵³ Data not presented here for reasons of space.

499 **Recommendation 13.7:** Government investigate the extent to which households are using firewood for cooking on open fires, and reinvigorate the campaigns to encourage those households to acquire "smokeless stoves".

500 **Recommendation 13.8** Government investigate the design of a cheap wood-stove which is durable and energy efficient and suitable for typical Fiji families and cooking requirements.

Fridges

501 Graph 13.10 gives the wide disparity between the rural and urban households, with urban households generally having more than twice the proportion with fridges than rural households.



502 The poorest rural quintile only had 25% of the households with fridges, compared to 67% of the poorest urban households. Put alternatively, of the bottom two rural quintiles, more than 70% did not have fridges. This would place a severe constraint on their ability to store meats and dairy products which deteriorate quickly with heat.

503 Nevertheless, Table 13.5 indicates that not only has there been significant progress in the acquisition of fridges between the

Table 13.5 Changes between 2002-03 and 2008-09						
	RQ 1	RQ 2	RQ 3	RQ 4	RQ 5	ALL
Changes in Numbers of Fridges						
Rural	997	1223	1291	470	1683	5664
Urban	3536	3865	2528	4054	5266	19248
Perc. Ch. In Proportions of HH with Fridges						
Rural	36	36	25	-4	12	16
Urban	28	26	7	4	4	11

two HIES, but the poorest quintiles, in both rural and urban areas, have shown larger increases in the proportion of households having fridges. This is good news. Nevertheless, there were almost four times as many extra fridges in the urban areas compared to that in the rural areas.

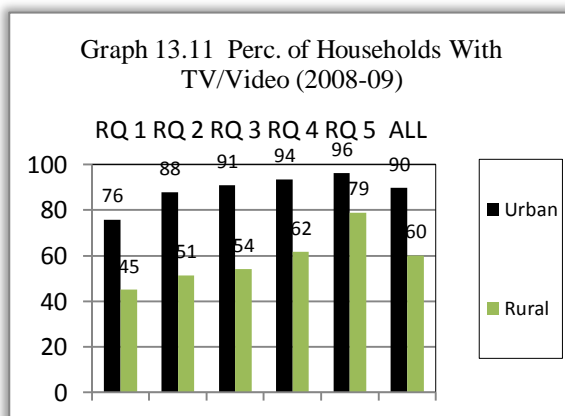
Television/Video and Computers

504 Graph 13.11 gives an interesting set of data which indicates the usual gap between rural and urban households in possessing this useful electronic item which not only conveys entertainment but increasingly educational programs for children

13 Household Assets

and adults. The urban households had quite solid coverage in 2008-09, with the lowest being for Quintile 1 with 87%, but rising to 88% by Quintile 2.

505 Rural households however had a quite low percentages between 45% and 55% for the first three quintiles, before rising to 79% for rural Quintile 5. While these percentages may seem low, they may be contrasted with even lower percentages for fridges indicated in Graph 13.10, clearly indicating the order of priorities.

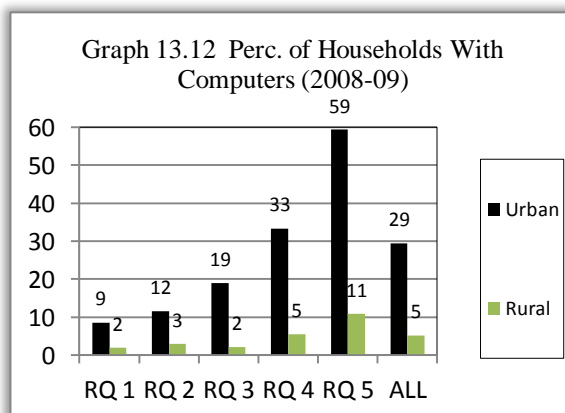


506 Table 13.6 indicates some similarities but also some contrasts with Table 13.5. Between the two HIES there have been very large increases in the number of households with television or videos- almost equal amounts in total in rural and urban areas. However, the percentage increases in the proportions of households with television/videos have been considerably higher in aggregate in rural areas (43%) compared to 13% in urban areas in aggregate, but the percentage increases have been considerably higher in the lower quintiles in both rural areas (70% and 69% increase in the first and second rural quintiles) and in urban areas (33% and 25% increase in the lowest two quintiles).

Table 13.6 Changes between 2002-03 and 2008-09						
	RQ 1	RQ 2	RQ 3	RQ 4	RQ 5	ALL
Change in Numbers of TV/Videos						
Rural	2691	3201	2291	3316	5421	16919
Urban	4285	4272	2934	4417	5533	21440
Perc. Ch. In Proportion						
Rural	70	69	34	27	41	43
Urban	33	25	8	6	5	13

507 These percentage increases in the proportions and the absolute numbers of increases in television/video sets are significantly higher than the increases in fridges.

508 Graph 13.12 with the percentages of households with computers gives the extreme contrast with the previous two graphs. While nationally there were some 29% of urban households with computers, the



13 Household Assets

percentage was a mere 5% for rural households, and an insignificant 2% and 3% for the lowest two rural quintiles. Even for the lowest urban households, a mere 9% had computers in the lowest quintile and 12% in urban Quintile 2.

509 These are abysmally low percentages compared to the percentage of households with television and video. It may be noted that some 59% of urban top quintile households had computers in the house.

510 Given the incredible power of the internet for knowledge acquisition, for news and entertainment, and cheap international communication though email and Skype, Graph 13.12 illustrates the massive digital divide that exists between urban and rural households, and between the richest and the poorest in both the urban and rural quintiles.

511 Table 13.7 also indicates that while there has been progress in the acquisition of computers by households, there have been six times as many computers added to the urban households as to the rural households.

Table 13.7 Ch. in Nos. of computers (2002-03 to 2008-09)						
	RQ 1	RQ 2	RQ 3	RQ 4	RQ 5	ALL
Rural	184	407	338	758	1488	3174
Urban	1033	1665	2553	4651	8859	18761

In both rural and urban households, almost eight times as many computers were added to by the top quintile as by the bottom quintiles: a mere 184 extra computers in rural Quintile 1 compared to 1,488 in rural Quintile 5; and only 1033 extra in urban Quintile 1 compared to 8859 in urban Quintile 5.

512 These graphs and tables suggest that there is great need for a public education campaign to convince especially the poorest households about the significant advantages that may be gained by households by the acquisition of computers for education of children and adults, for connection to the Internet, and all the advantages that accrue therefrom, that are well understood by the well-off and the educated in our society.

513 In addition to the social preferences of households, part of the problem may also be the high Internet fees and charges by the telecommunication companies. These must be addressed by the Commerce Commission in the interests of the rural households and the poorest households.

514 **Recommendation 13.9** Poverty stakeholders urge all those in authority to mount a major public education campaign to encourage the poorest households to prioritize the purchase of computers relative to other less necessary household assets.

515 **Recommendation 13.10** Poverty stakeholders urge the Commerce Commission to act to further reduce Internet charges to rural households especially.

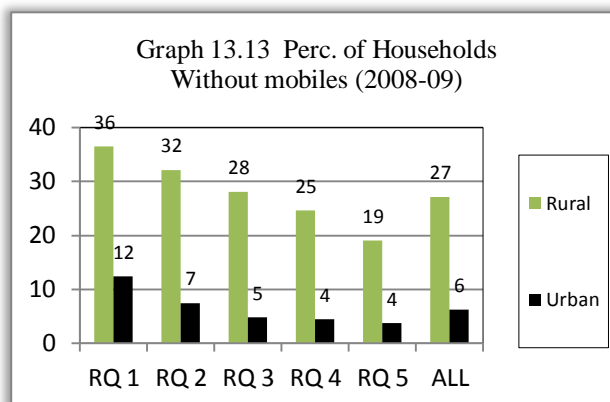
516 **Recommendation 13.11** Poverty stakeholders urge all organizations with interests in IT literacy, to mount national education campaigns to alert the poorest households to the numerous educational, commercial, financial and entertainment benefits of the Internet.

517 **Recommendation 13.12** Poverty stakeholders urge Government to investigate fiscal incentives to ensure that basic computers and ancillary equipment are sold at prices affordable by the poorest households.

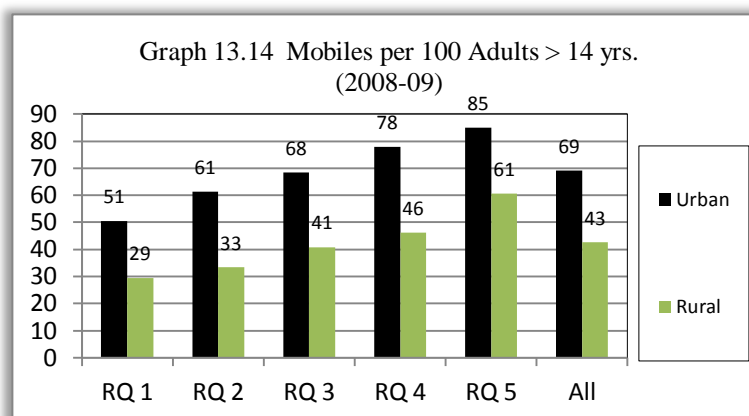
Mobile phones

518 One of the extraordinary technological developments in Fiji over the last decade has been the introduction of mobile phones. While mobile charges initially remained high because of monopoly, the introduction of competition has led to not only phone charges coming down but also the price of phones themselves were reduced to minimum levels to encourage usage of the mobile networks.

519 Graph 13.13 indicates that even in 2008-09 only 6% of urban households did not have a mobile phone, while in the poorest urban quintile, only 12% did not. The situation in rural areas was naturally not as good no doubt because of the difficulty and cost of setting up rural networks. Nevertheless, the graph makes clear that in the top rural quintile only 19% of households did not have mobile phones, with the percentage rising to a quite high 36% for the poorest rural quintile. No doubt, the situation currently (three years later) will be much better than indicated by Graph 13.13.



520 Graph 13.14 indicates that within the households, the poorest households have significantly fewer mobiles than the richest, in both the rural and urban areas. In the poorest rural quintile, there were only 29 mobiles per 100 persons over the age of 14, rising to 61 in the top quintile. In urban households,



however, the poorest quintile had 51 mobiles per 100 adults, while the richest quintile had 85 mobiles.

- 521 While the upward gradients are quite pronounced in both rural and urban areas, it must be kept in mind that the higher mobile ownership in the upper quintiles in rural areas, may not be a reflection of the income or poverty status of households, but that the rural upper quintiles are in areas easily covered by mobile networks hence encourage greater mobile ownership.

- 522 Table 13.8 gives an excellent profile of the expenditures on mobile phone recharge cards. The total amounts are quite large: \$58 million in total, \$40 million in urban areas and \$18 million in rural areas.

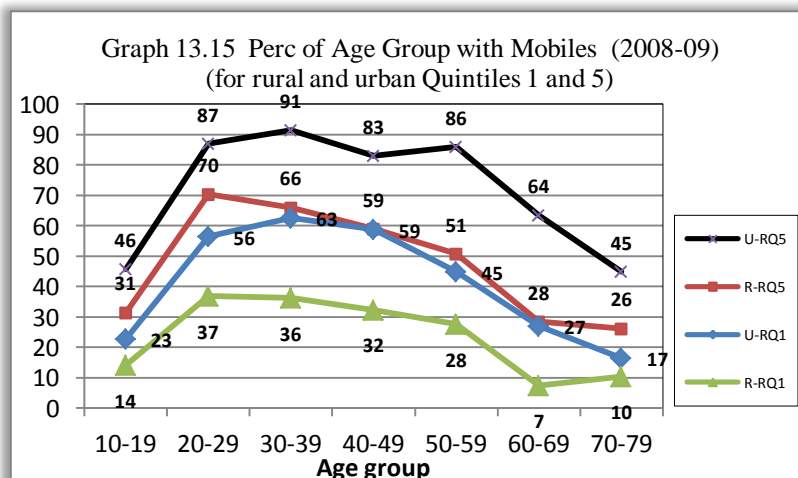
Table 13.8 Expend. on Mobile Recharge (2008-09_						
Area	RQ 1	RQ 2	RQ 3	RQ 4	RQ 5	All
\$million						
Rural	1.7	2.3	3.1	4.5	6.6	18.2
Urban	3.7	5.4	7.4	8.6	15.3	40.3
Exp. Per Household pa (\$)						
Rural	118	154	187	241	301	210
Urban	248	342	444	462	666	454
Exp. Per Adult (>14) pa (\$)						
Rural	32	42	57	79	107	65
Urban	67	93	128	144	245	138

- 523 The amounts spent per annum by households and adults are also quite large not just for urban households but also rural households. The total, per household and per adult amounts spent by the poorer households are also considerably higher than the corresponding amounts spent on necessities like health expenditure.

- 524 While expenditure on mobiles has to some extent replaced expenditure on land-lines, the total amounts spent on communication has received a huge boost because of the expenditure on mobiles. There is little doubt that many mobile phone

consumers have "gone overboard" with the use of mobile phones both for voice communication and text messaging, no doubt also encouraged by the mobile phone companies'

imaginative marketing campaigns which have literally flooded the market, resulting in what may be described as "addictive behavior" by mobile phone users, both adults and children.



525 While mobile phones have immense personal and commercial advantages for families and corporations, there are also disadvantages which have not been publicly examined, especially for children, and especially for children from poor households.

526 Graph 13.15 for instance gives the percentage of the population having mobile phones, by age groups for four groups: Urban Quintile 5 (U-RQ5), Rural Quintile 5 (R-RQ5), Urban Quintile 1 (U-RQ1) and Rural Quintile 1 (R-RQ1). The positions of the graphs clearly indicate the enormous advantages that the well-off in urban Quintile 5 have over the other three groups.

527 The top rural Quintile (RQ5) has virtually the same age profile as the bottom urban quintile (RQ1).

528 Right at the bottom of course, are the poorest quintile in rural areas (RQ1).

529 Thus, looking only at the age group 10 to 19, 46% in the richest urban quintile had mobile phones in 2008-09, compared to 23% for the poorest urban quintile- just a half of the richest quintile.

530 In rural areas, the richest rural quintile had 31% of those aged 10 to 1 with mobiles, compared to a mere 14% of those from the poorest rural quintile- again less than a half.

531 Similar comparisons may be made at virtually all the age groups shown in the graph above.

532 One of the often stated justifications for possessing

Table 13.9 Gender Gap in Perc. With Mobiles [% (F-M)/M]						
	RQ 1	RQ 2	RQ 3	RQ 4	RQ 5	FIJI
Rural	-46	-48	-39	-41	-23	-38
Urban	-20	-18	-5	-9	-7	-11

mobiles is that it enables families to be more comfortable where the females in the family are, in case of emergencies.⁵⁴ The data indicates the opposite!

533 Table 13.9 indicates that Females have a 38% gender gap with males in rural areas and a 11% gender gap in urban areas.

534 Moreover, the gender gap is higher, the poorer is the family. Thus females in the urban Quintile 1 had a -20% gap with males in that quintile, but only a 7% gap in urban quintile 5. In rural areas, the gap was an even wider -46% for females in the poorest quintile (RQ1) and a somewhat lower -23% gap in rural quintile 5. Overall, males are far more likely to be in possession of mobiles than females.

535 These issues are addressed in the recommendations below.

⁵⁴ There may also be a stereotypical perception that females are much bigger users of mobiles than males. This also needs investigation.

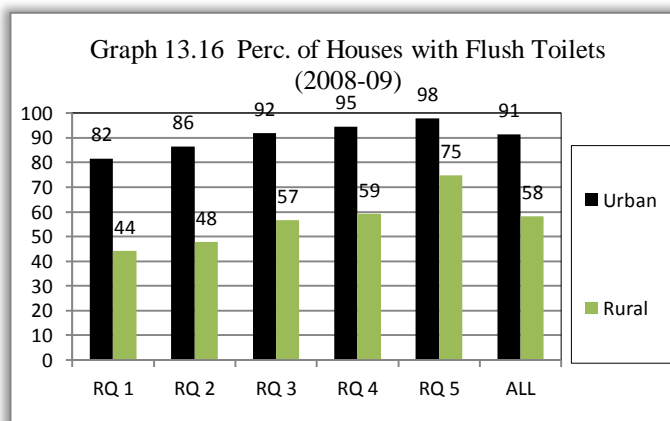
536 **Recommendation 13.13** Poverty stakeholders urge the authorities to instigate a public inquiry into all aspects of the use of mobile phones by children, including negative aspects of social interpersonal behavior among children, and misuse of pocket money originally intended for lunches and snacks.

537 **Recommendation 13.14** Poverty stakeholders urge the authorities to instigate a public inquiry into the marketing campaigns by mobile phone companies to investigate whether it is resulting in excessive expenditure on unnecessary mobile phone usage.

538 **Recommendation 13.15** Poverty stakeholders urge the authorities to instigate a public inquiry into the possibilities for encouraging mobile phone companies to initiate programs that enhance the use of mobile phones for education especially for children who do not have access to internet through computers.

539 **Recommendation 13.16** Poverty stakeholders urge a public education campaign to encourage gender equality in the ownership and use of mobiles.

540 **Recommendation 13.17** Poverty stakeholders urge an inquiry into the excessive corporate use of mobile texting competitions which amount effectively to a "lottery" rather than a competition.



Flush Toilets

541 Not only are flush toilets one of the basic comforts of life, but they have a positive impact on the health of households. Graph 13.16 indicates the low percentages in 2008-09, with the bottom two rural quintiles, having less than 50% of households with flush toilet. The percentage rises slowly to 75% for the top quintile.

542 The bottom urban quintile, on the other hand already had 82% with flush toilets, rising slowly to 98% in the top quintile.

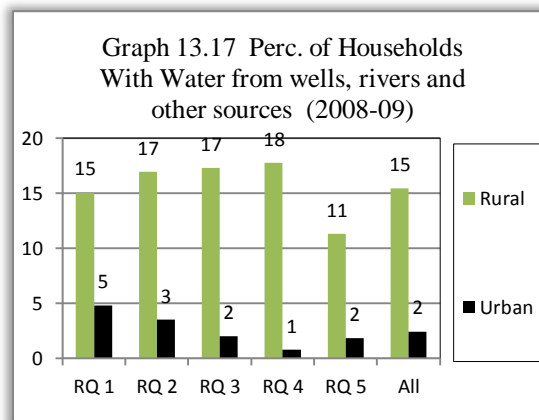
Graph 13.10 Perc. Change in Proportions with Flush Toilets (2002-03 to 2008-09)						
	RQ 1	RQ 2	RQ 3	RQ 4	RQ 5	ALL
Rural	81	62	47	27	24	40
Urban	34	18	10	5	1	11

543 Table 13.10 however indicates the good news that there has been more rapid progress in rural areas, with a 40% increase in the proportion with flush toilets, with much higher proportionate increases in the lower rural quintiles, with 81% increase in the bottom quintile and 62% increase in the second quintile.

544 In urban areas as well, there have been much larger percentage increases in the poorer quintiles than in the upper quintiles: 34% in the bottom urban quintile-again, some goods news. Progress is being made, even though large gaps still exist between the rural and urban households and the bottom and top quintiles.

Water source

545 Health officials well recognize that many diseases are due to households having to use unhealthy water sources, with water not being boiled before drinking. Most urban households now have metered water, while rural households now have recourse to communal pipes water-tanks and boreholes, all of which may be considered relatively safe.⁵⁵ However quite a number of rural households still depend on rivers and creeks or wells or other sources for water, which may be considered more unsafe.



546 Graph 17.7 indicates that in urban areas, very low percentages depend on these unsafe sources- a mere 5% in the poorest urban quintile, declining steadily to just 2% in urban quintile 5.

547 In rural areas, however, between 15% and 18% of the four poorest quintiles depend on wells, rivers and other sources, with the proportion dropping to 11% for the top rural quintile only.

Table 13. 11 Perc. Change in Proportions of HH with Unsafe Water Source (2002-03 to 2008-09)						
	RQ 1	RQ 2	RQ 3	RQ 4	RQ 5	All
Rural	-50	-41	-24	-7	-35	-33
Urban	-21	31	-23	-72	20	-18

548 Table 13.11 however indicates quite solid progress that has been made between 2002-03 and 2008-09, especially in the rural areas where the poorest people have seen the largest percentage declines in the proportion of households with unsafe water sources: 33% in aggregate, but 50% and 41% in the lowest two rural quintiles.

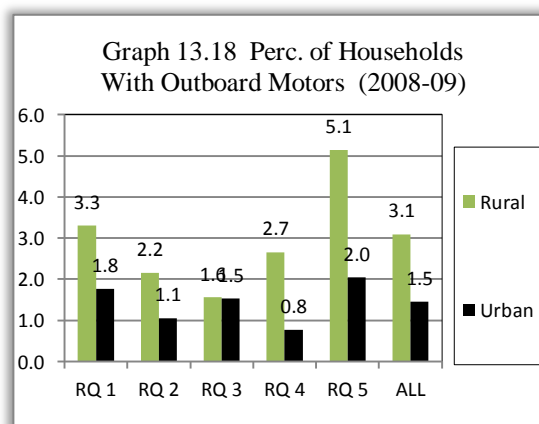
⁵⁵ Some may argue that water tanks and borehole water may be as unsafe as water from wells or rivers.

549 As a challenge to stakeholders who wish to provide cleaner water sources, it may be noted that in 2008-09 there were only about thirteen thousand households in rural areas, and two thousand in urban areas, without safe sources of water. This would seem to be a manageable challenge, suggesting that, very crudely, around \$15 million dollars might remedy the situation (at \$1,000 per water tank)

Outboard Motors

550 One household asset which has a bearing on food security based on marine foods, is the ownership of out-board motors. Graph 13.18 indicates the quite unusual U-shaped pattern of ownership with both the rural and urban households showing lower ownership in the middle quintiles than in the upper and lower quintiles.

551 The percentages of households are not only low (only 5% of households in the top rural quintile had out-board motors) but Table 13.12 suggests that between the two HIES, ownership in the rural areas significantly declined in the second, third and fourth rural quintiles.



552 Given that this might imply a reduced emphasis on fishing to complement subsistence food and possibly on commercial fishing as well, there may be a link to the evidence discussed earlier in the section on food security, of reduced emphasis on fresh fish consumption. It would be important therefore to clarify the causes or reduced ownership of outboard motors: whether due to unaffordable prices of out-boards, or factors associated with access to fishing grounds.

	RQ 1	RQ 2	RQ 3	RQ 4	RQ 5	ALL
Rural	45	-26	-60	-31	0	-17
Urban	16	19	134	-26	46	32

553 **Recommendation 13.18** Poverty stakeholders call for a review of the factors leading to reduced ownership of outboard motors in rural areas.

554 **Recommendation 13.19** If it is found that outboard engine prices are the determining factor, then financial incentives be examined with a view to encouraging greater ownership of outboard engines in order to encourage fishing for marine foods.

- 555 **Recommendation 13.20** If it is found that access to fishing grounds is the limiting factor then the authorities examine options to improve access to fishing grounds.
- 556 **Recommendation 13.21** Poverty stakeholders urge FBS to place greater emphasis in future HIES on obtaining more information on currently unrecorded household durables that improve standards of living within households, such as microwaves and food processors, especially for women.
- 557 **Recommendation 13.22** Poverty stakeholders urge government to consider financial incentives for poverty stakeholders to install water tanks for the poorest rural households, where physically and economically feasible.

Annex A Food Poverty Line baskets and Nutritional Values

Table A.1 2002-03 FPL Baskets of Foods for family of 4 AE per week (gms)				
Food Name	Rur Fij	Urb Fij	Rur Ind	Urb Ind
Cassava, peeled, boiled	11000	5000	500	500
Taro, common, white, boiled	6000	5000	500	500
Potato, pale skinned, peeled, boiled		1000	2000	2000
Biscuit, cabin, hard, Pacific Is.	1000	800	200	200
Bread, white, regular	1000	2000	500	1000
Flour, wheat, white, plain	6000	5000	8000	7000
Noodles, Maggi-type, boiled	100	100		
Rice, white, boiled	4000	4000	7000	8000
Reef Fish, composite, steam/poach	1500	1000	750	500
Chicken, curry without bones	250	500	500	500
Egg, chicken, whole, boiled (medium 32 gm)	202	404	404	404
Beef, minced	500	500		
Lamb, neck Chop, simmer, lean&fat		500	1000	1000
Mackerel, canned In Natural Oil	425	425	425	425
Beef, corned, canned	163	163		
Butter, regular	50	200	100	200
Ghee, butter			100	100
Vegetable Oil, polyunsaturated	500	500	1000	1000
Taro, leaves, cooked (<i>rourou</i>)	2000	1000		
Edible Hibiscus, leaves, boiled (<i>bele</i>)	2000	1000		
Fern, leaves, boiled (<i>ota</i>)	1000	250		
Coconut, flesh, mature, fresh	1500	500		
Cabbage, Chinese, cooked		250	250	250
Cabbage, European White, boiled	250	250	500	500
Eggplant, boiled	500	500	1000	1000
Tomato, ripe		500	1000	1000
Beans, green, boiled			1000	1000
Okra, boiled			500	500
Pumpkin, boiled			1000	1000
Onion, mature, boiled	250	250	1000	1000
Garlic, boiled		100	200	200
Peas, split, dried, boiled		250	2000	2000
<i>Tubua/ churaiya</i>			1000	1000
Banana, ripe	1000	1000	1000	1000
Pawpaw	1000	1000	1000	1000
Sugar, brown	750	750	750	750
Chilli, long, thin, boiled	50	100	200	200
Soft drink, cola		500	500	500
Jam	100	100	100	100
Milk Powder, whole	750	750	750	750
Tea, Indian, infused	50	50	100	100

Source: Narsey (2008), Table 3.8, p. 31.

Annex A Food Poverty Line Baskets and Nutritional Values

Table A.2 Nutrient Content Per Adult of revised 2002 Food Poverty Line Baskets					
	Requirements per adult	Rur iTaukei	Urb iTaukei	Rur Indo-	Urb Indo-
Energy	2200 k cals	2819	2406	2441	2489
Protein	55 gm (or 1 gm per kg)	77	72	80	77
Fat	Less than 65 gms	65	60	71	74
Carbohydrate	200 to 300 gms	492	404	379	389
Thiamin	1.2 ug	1.4	1.2	1.3	1.2
Riboflavin	1.3 ug	1.6	1.4	1.3	1.3
Niacin	16 mg	17	15	17	16
Vitamin C	45 gms	239	155	110	110
Vitamin A	600 units	1335	896	797	831
Retinol		179	260	247	278
b-carot-eq_ug		6924	3800	3291	3307
Sodium	920 to 3200 mg	778	969	536	637
Potassium	1950 to 5460 mg	4395	3184	2552	2540
Magnesium_mg	260 mg	912	619	278	280
Calcium	600 mg	1110	824	608	634
Iron	27 to 9 mg	21	14	11	11
Zinc	14 to 4.2 mg	6	7	8	8

Source: Narsey (2008), Table 3.9, p.32.

Annex B World Bank Methodology and Results: comparisons with this study

- 1 The World Bank 2011 Report on Poverty in Fiji
 - i) used expenditure (which is the criterion used by World Bank in many developing countries).
 - ii) excluded expenditure on household durables and on health.
 - iii) used different methodology to derive the values for the Food Poverty Lines and Basic Needs Poverty Lines. While this study uses the 2002-03 values for FPL and BNPL and adjusts them forward to 2008-09 values, the WB devised FPL and BNPL values for 2008-09 and adjusted them backwards to 2002-03 using the Fiji Consumer Prices Index.
- 2 The World Bank approach to derive the Food Poverty Line values was as follows:
 - i) While they recognized 2,100 calories as the dietary energy required per person, they used a “reference” household in Fiji with 2 adults and 2 children, or 3 Adult Equivalents. They adopted a “scaling factor” of 1.33 applied to the 2,100 calories per person, to obtain a target 2,793 Calories per Adult Equivalent for the “Reference Household”.
 - ii) Then they estimated the price per calories that reflected the purchasing patterns of households in the second, third, fourth and fifth deciles of 2008-09.
 - iii) the cost of the Food Poverty Line was then set at 2793* (the estimated unit cost of 1 calorie).
 - iv) This resulted in the WB estimate for a FPL pAE of \$961 per Adult per year, which they then used for both Urban and Rural Households, for all ethnic groups.
- 3 There is much to be said for having one Food Poverty Line value for rural and urban areas as long as food costs do not vary significantly between the rural and urban areas.
- 4 There is also much to be said in having one FPL value for all ethnic groups even if the cost of the different ethnic low-income diets are significantly different.
- 5 It should be noted however, that a major practical implementation issue arises when poverty lines are applied to guide minimum wages legislation, as has recently happened in Fiji. The WB approach to the FPL, while theoretically understandable to economists, is not transparent at all to the ordinary stakeholders in minimum wages negotiations, such as employers, unions and members of the minimum

wages councils. The FPL basket approach is totally transparent, and makes sense to all stakeholders, in that they can see exactly why minimum wages need to be adjusted and by how much, in relation to the perceived changes in cost of basic food items.

- 6 It may also be noted that when lobby groups ask for minimum wages to be raised, the most frequent justifying arguments is in reference to the changes in the costs of basic foods such as rice, local root-crops, chicken and flour.
- 7 The World Bank approach to the Non-Food Poverty Line was also quite different:
 - i) They first obtained the Non-Food shares of total expenditure for households whose total expenditure was close to the FPL values (they estimated the ratio to be 0.59 in urban areas, and 0.47 in rural areas.
 - ii) they then obtained the values for BNPL by multiplying the same FPL for both rural and urban areas, with the “multipliers” to obtain the urban and rural BNPL values as follows:

$$\text{Urban BNPL} = \text{FPL}/(1-0.59) = \$2349 \text{ per AE pa.}$$

$$\text{Rural BNPL} = \text{FPL}/(1-0.47) = \$1830 \text{ per AE pa.}$$

These BNPL values were used to estimate the Incidence of Poverty or Head Count Ratio in 2008-09.

- 8 To obtain the FPL value for 2002-03, the WB Team deflated the 2008-09 FPL value by the Food CPI change between 2003 and 2009 (stated to be 1.42 or implying a 42% increase in prices between these two HIES. Our study found has estimated that the FPL basket of foods increased in price by a somewhat lower 35%.
- 9 The WB study then deflated the 2008-09 Non-Food Poverty Line by the Total CPI change between 2003 and 2009, ie a factor of 1.2466 or 24.66%. Our study has estimated that the BNPL changed between 2002-03 and 2009-09 by a higher 30%.
- 10 The World Bank study also reported that prices in rural areas seemed to be systematically higher than that in urban areas, which they explained as due to the higher costs of transportation to rural areas. They therefore used price deflators on all expenditure values in rural areas (divided by 1.03 in 2002-03, and divided by 1.04 in 2008-09); while in urban areas they divided by 0.97 and by 0.96 respectively.
- 11 These calculations are not available to this author or to the Bureau. In previous studies, this adjustment has not been bothered with as it has generally been thought that while modern processed foods would be more expensive in rural areas, the

converse would be true for locally produced foods, with the effects largely balancing out. It was also not thought viable to obtain proper rural price indices as even the rural prices given out by the Bureau are largely obtained along the major highways.

Comparisons of FPL, NFPL and BNPL values

- 12 Table B.1 indicates that the Urban BNPL values are some 28% higher than the rural values.

Table B.1 World Bank values for BNPL pAE pw (2002-03 and 2008-09)			
	Rural (\$)	Urban (\$)	Diff. % (U-R)/R
2002-03	28.23	36.23	28
2008-09	35.19	45.17	28
Perc. Ch.	25	25	

- 13 They also indicate that both rural and urban values have increased by the same 25%, largely a result of their methodology.

- 14 Table B.2 gives this study's estimated values for the BNPL. While the values have changed between 2002-03 and 2008-09 by about the same percentages, the urban:rural differences are much lower than that of the World Bank.

Table B.2 Narsey (2012) values for BNPL pAE pw (2002-03 and 2008-09)			
	Rural (\$)	Urban (\$)	Diff. % (U-R)/R
2002-03	31.30	36.02	15
2008-09	40.82	46.10	13
Perc. Ch.	30	28	

- 15 Table B.3 gives the percentage difference in values for the BNPL between The World Bank (2011) and this study (Narsey 2012).

- 16 Note that there is very little difference between the urban BNPL values for both the HIES periods. Hence the estimates for the urban incidence of poverty will be fairly consistent, except for the WB use of expenditure instead of income.

Table B.3 % Diff (WB-Narsey)/Narsey		
	Rural	Urban
2002-03	-10	0.6
2008-09	-14	-2.0

- 17 However, the WB rural values are significantly lower than used by this study-by 10% for 2002-03 and by 14% for 2008-09. These differences are bound to have some impact on the estimates for the incidence of poverty and Head Count Ratio with the WB estimates for rural poverty likely to be lower than this study's, especially for 2008-09.

Table B.4 World Bank Estimates of Incidence of Poverty			
	2002-03	2008-09	% Ch.
Rural	44.1	44.0	0
Urban	34.5	26.2	-24
FIJI	39.8	35.2	-12

Comparisons of Results

- 18 Table B.4 gives the WB estimates for the incidence of poverty or Head Count Ratio for 2002-03 and 2008-09.

- 19 Table B.5 gives the estimates by this study (Narsey 2012) Table B.6 gives the percentage differences (Narsey-World Bank).

- 20 First, the World Bank estimates imply that there has been no change in poverty in rural areas, Narsey (2012) indicates that there has been a 6% worsening of poverty in rural areas. The World Bank result is not compatible with the macro data on rural Fiji, nor with the many other indicators that have been derived in this study, which suggest that rural poverty has worsened and is in urgent need of attention.

Table B.5 Narsey (2012) Estimates of Incidence of Poverty			
	2002-03	2008-09	% Ch.
Rural	40.0	42.5	6
Urban	28	18	-34
FIJI	35	31	-11

- 21 Both studies indicate that the urban poverty decreased quite significantly, the World Bank suggests by -24%, while Narsey (2008-09) suggests by -34%. Given that Narsey (2012) has used Income per AE as the poverty criterion while WB has used expenditure, then it is possibly that the urban increases in income may not have been completely transmitted through to expenditure, hence the lower reduction of poverty estimated by the World Bank. This study argues that income is a better criterion to use for measuring poverty.

- 22 Table B.6 indicates that the Narsey (2012) estimates of the incidence of poverty are all much lower than the World Bank estimates.

Table B.6 Perc. Difference in the Head Count Ratio % (Narsey- World Bank)/WB		
	2002-03	2008-09
Rural	-9	-3
Urban	-19	-30
FIJI	-13	-13

- 23 The national incidence of poverty was -13% lower in both 2002-03 and 2008-09. However, in urban households, the Narsey estimates are some 19% lower in 2002-03 and a very large 30% lower in 2008-09.

- 24 These differences are no doubt partly due to the use by the World Bank of expenditure instead of income, and also partly because of the methodological differences in deriving the values for the Basic Needs Poverty Lines, which resulted in different relativities in the standards of poverty in urban and rural areas.

- 25 One area in which these differences would express themselves more are the guidelines for poverty gaps and poverty alleviation resources required for the different rural and urban areas and divisions. Having a higher proportion of the population below the poverty line would automatically increase the total quantity of poverty alleviation resources indicated to be needed.

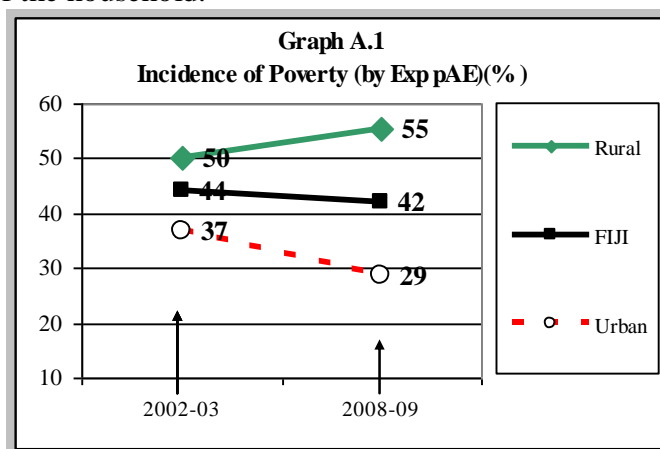
Estimates using Unadjusted Expenditure

- 26 The World Bank study (2011) adjusted the household expenditure by deducting expenditure on durables and expenditure on hospitalisation, as well as by their

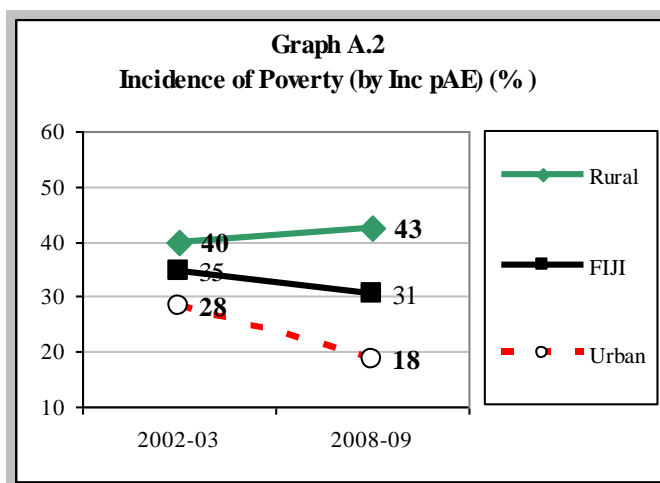
estimates of relative price differences in rural and urban areas. While the deduction of hospitalization costs would not have made much difference, deducting expenditure on durables raises some questions. The rationale for doing so is that theoretically, expenditure on durables has to be amortized over its life time. Not knowing the life-time of the durables purchased therefore prevents that exercise from being undertaken,

- 27 Nevertheless, had the household not spent those sums on durables, they would have spent it on other expenditure (hence that amount would have been included in the WB criterion of expenditure and made the household seem less poor) or saved hence not reflected at all in the WB expenditure criterion. Using the income criterion, however, makes the deductions totally unnecessary, and more accurately reflects the standard of living of the household.

- 28 While the WB used expenditure as the criterion because that is usually the case for poverty analysis in most developing countries where income is not well picked up in the HIES, the Fiji HIES have been well implemented and the income and expenditure are quite consistently correlated, with dis-savings at the low income levels, and positive savings rates at the higher income levels, increasing with income levels. For Fiji, one may make a case that income is a better criterion for measuring poverty, just as it is used in middle income and more developed countries.



- 29 Graph A.1 indicates that exactly the same trends are indicated using Expenditure per Adult Equivalent or using Income per Adult Equivalent. Rural poverty rises (10% by expenditure and 6% by income) while urban poverty decreases (22% by expenditure and 34% by income). The changes in poverty are more extreme, if income is used, rather than expenditure.



- 30 It should also be noted that the estimate of “poverty gaps” i.e the total resources required to move the poor households just up to the poverty line is naturally higher if expenditure is used rather than income.

- 31 For Fiji in 2002-03, the difference would have been \$37 million or 31% higher than that indicated by the income criterion, while in 2008-09 it would have again been 31% higher, at \$48 million. These are substantial sums in relation to the actual amounts that are available for poverty alleviation policies.

Table B.7 Poverty Gaps: Expenditure and Income criteria (\$m and %)		
	2002-02	2008-09
A: By Expenditure (\$m)	157	200
B: By Income (\$m)	120	152
%(A-B)/B	31	31

- 32 To give an extreme example, if a household has an expenditure level which is below the BNPL it would be considered to be poor and in need of poverty alleviation resources. But its income may be higher than the BNPL and therefore could not reasonably be considered to be a “poor” household deserving of poverty alleviation resources, simply because the household spent less.
- 33 This factor is clearly very relevant in the Fiji case, given that the expenditure criterion for poverty would require 31% more poverty alleviation resources than that indicated by the income criterion used in this study. This is therefore another justification for using income per adult equivalent as the poverty criterion in Fiji rather than the expenditure criterion that has been used by the World Bank (2011).⁵⁶
- 34 In summary, the choice of a methodology to identify the poor should produce results which are clearly in consonance with the observed trends in the economy, while giving policy guidelines on poverty alleviation measures, which are reasonable and pragmatic. On both these criteria, the WB use of their modified expenditure is not as sound as the income criterion used in this study. The WB approach fails to identify the real deterioration that has occurred between 2002-03 and 2008-09 in the rural areas in Fiji. Moreover the expenditure criterion also gives an estimate for required poverty alleviation resources that are 31% higher than that indicated by the income approach.
- 35 Given that the income criterion is inherently superior to the expenditure approach as an indicator of the monetary potential of households to achieve particular living standards, and the discussion in this annex suggests that there are clear disadvantages to using the expenditure approach in Fiji, stakeholders in poverty are advised to continue to use the income approach in Fiji.

⁵⁶ While the WB (2011) used a modified form of expenditure, the poverty gap results would not be significantly different from that derived here using the unadjusted expenditure.

Annex C Summary of Recommendations

1. Recommendation 2.1: Stakeholders in poverty in Fiji, discuss the usefulness of developing one Food Poverty Line basket of foods for all Fiji, satisfying the basic nutritional requirements, without reference to ethnicity or area, noting that there are significant ethnic differences in consumption of basic foods.
2. Recommendation 2.2: Stakeholders discuss and approve the methodology and resulting values of the BNPL, for 2008-09.
3. Recommendation 2.3: Stakeholders request FBS to adjust the BNPL values from 2008-09 to 2012, using the methodology in this Report, and that used by the World Bank. These values may then be used as minimum and maximum guidelines by the Wages Councils and other stakeholders in poverty.
4. Recommendation 3.1 Participants agree that the rural households face the highest incidence of poverty, compared to urban households.
5. Recommendation 3.2 Participants agree that the Northern Division, with the highest incidence of poverty, justifies the need for special attention, such as the "Look North" policy.
6. Recommendation 3.3 Participants agree that there are no significant ethnic differences in the incidence of poverty and that poverty alleviation measures do not require ethnic differentiation.
7. Recommendation 4.1 Participants agree on the need to assess the percentage of total government expenditure allocated directly for poverty alleviation purposes and compare with target of 10% indicated by the Poverty Gaps data.
8. Recommendation 4.2: In all national allocations of poverty alleviation resources, and broad development initiative, a rough target should be to allocate roughly 70% to rural areas.
9. Recommendation 4.3: Stakeholders attempt to examine what proportion of government's annual recurrent and capital development budget is allocated to rural areas
 - a. .
10. Recommendation 4.4: Stakeholders request Planning Office to examine what proportion of government's annual recurrent and capital development budget is allocated to the divisions and compare with the proportions recommended here.
11. Recommendation 4.5: Stakeholders agree that poverty alleviation resources are to be allocated purely on the basis of need, not ethnicity.

Annex C Summary of Recommendations

12. Recommendation 5.1: Stakeholders call on Government to urgently foster strategies to enhance the incomes of those involved in
 - a. subsistence incomes
 - b. commercial agriculture
 - c. Casual Wages under regulation by Wages Councils.
 - d. Small family run self-employment enterprises.
13. Recommendation 5.2: Stakeholders in public sector salaries and wages note the need for income control when the economy is in serious down-turn, so as to even the burdens on all stakeholders.
14. Recommendation 5.3: Stakeholders discuss the causes of economic stagnation- namely the lack of investor confidence.
15. Recommendation 5.4 Stakeholders continue to foster strategies that increase the flows of remittance incomes to Fiji, by fostering labor mobility schemes within PICTA and especially the new opportunities opening up in Papua New Guinea.
16. Recommendation 5.5 Stakeholders continue to foster strategies that increase the flows of remittance incomes to Fiji, by fostering labor mobility schemes as an essential minimum content of PACER Plus with Australia and NZ.
17. Recommendation 5.6 Tertiary training institutions be encouraged to increase the output of skills in demand in international labor markets, and trainees recognize that they also need to share in the costs of their training, which will be generously rewarded by the higher incomes available abroad.
18. Recommendation 5.7 Stakeholders move for further research into the nature of internal gifts and remittance and the possibilities of encouraging its strengthening through taxation policies.
19. Recommendation 5.8 Stakeholders urge the Reserve Bank policies to further reduce the cost of transmitting remittance funds to and within Fiji.
20. Recommendation 5.9 Stakeholders urge the tertiary education institutions to organize a national symposium on all aspects of the remittance economy which impacts on Fiji's development.
21. Recommendation 6.1: Urgent attention be given to sponsoring a study to examine the impact on economic growth and income distribution of recent policy changes in taxation- personal and corporate taxes, fiscal, customs and excise duties, and VAT.

Annex C Summary of Recommendations

22. Recommendation 6.2 Poverty stakeholders examine whether there is a need to introduce taxation policies with the specific objective of improving income distribution, without harming the prospects for economic growth.
23. Recommendation 7.1: Recommendation 7.1: Poverty stakeholders agree that there is generally a downward impacts on household standards of living, including expenditures on education and health, caused by larger numbers of children in the family.
24. Recommendation 7.2 Poverty stakeholders call for greater urgency, higher levels of resources, and new public education initiatives to be devoted towards the encouragement of family planning and fewer children. Strategies may include the use of fiscal incentives by government, such as fully subsidized provision of family planning medications and procedures.
25. Recommendation 8.1 Stakeholders agree on the need for a major effort to revitalize home production and consumption in both rural and urban households through innovative campaigns.
26. Recommendation 8.2 Stakeholders agree on the need for major infrastructure improvements to the marketing of locally produced agricultural and marine products.
27. Recommendation 8.3 Stakeholders agree on the need for major infrastructure initiatives throughout Fiji to improve the access of consumers to quality local fresh foods.
28. Recommendation 8.4 Stakeholders agree on the urgent need to improve the quality and presentation of value added agricultural and marine products in super-markets and shops (including the use of ice for marine products), to counter consumer tendencies to move towards imported processed foods.
29. Recommendation 8.5 Stakeholder agree on concerted national campaigns and competitions to design nutritious snack foods using local agricultural and marine products, that are acceptable to children's tastes, and affordable in the Fiji situation.
30. Recommendation 8.6 Stakeholder agree on the need to place "health taxes" on nutritionally poor snack foods and other foods such as fatty meats, with the tax revenues being earmarked for campaigns for better quality food products.
31. Recommendation 8.7 Stakeholders agree on the need to ban advertisements for non-nutritious snack foods on television and radio

Annex C Summary of Recommendations

32. Recommendation 8.8 Stakeholders agree on the need to ban sponsorship of children's sports by manufacturers of non-nutritious food products, with the revenue short-falls for sporting bodies to be provided by tax-payers through the annual Fiji Government budget.
33. Recommendation 8.9 Stakeholders agree on the need to monitor the fat and general nutrition content of certain meat products such as sausages and lamb portions.
34. Recommendation 8.10 Stakeholders agree on the need for dramatic and innovation initiatives to encourage all the ethnic groups to learn to use local foodstuffs in their everyday cooking. One major initiative, conducted jointly between the Fiji Food and Nutrition Committee and Food, Catering and Nutrition Departments of tertiary institution, and local television stations, could be an appropriately designed and produced "Fiji Master Chef" competition for television, that fosters the use of all the key local food stuffs in exciting and innovative recipes.
35. Recommendation 9.1 Poverty stakeholders strongly recommend further increases in taxes on alcohol and tobacco, with the increased revenues to be earmarked to the Ministry of Health for related activities.
36. Recommendation 9.2 Poverty stakeholders recommend that the Ministry of Health seeks professional and technical advice on the welfare and productivity impact of excessive yaqona consumption in Fiji.
37. Recommendation 9.3 Stakeholders consider recommending a health tax on yaqona to discourage its consumption, with the associated tax revenues to be earmarked to the Ministry of Health for related activities.
38. Recommendation 9.4 Indo-Fijian community groups such as social and religious organizations be encouraged to mount education campaigns to discourage the excessive consumption of yaqona at funeral and wedding gatherings.
39. Recommendation 9.5 Community groups such as social and religious organizations be encouraged to put pressure on government to ban advertising on alcohol products.
40. Recommendation 10.1 Given the small amounts being spent on health expenditures by the rural and urban poor, poverty stakeholders agree on the continuing need for subsidized health care for the poor.
41. Recommendation 10.2 Poverty stakeholders discuss the need for households to increase their financial expenditure on health and health insurance and reduce it on non-essentials such as narcotics.

Annex C Summary of Recommendations

42. Recommendation 10.3 Poverty stakeholders discuss the need for the poorest households to be covered by some form of health insurance scheme, perhaps by the ear-marking of a certain proportion of VAT revenues.
43. Recommendation 10.4 Poverty stakeholders discuss the need to educate households who are able to afford paying for medicines and hospitalization charges, to share in related costs in order to reduce burdens on tax-payers.
44. Recommendation 11.1 Poverty stakeholders strongly urge greater budgetary allocations for rural pre-schools- setting up the required classes, and hiring the required trained teachers for the rural areas, to reduce the enrolment gap with urban areas.
45. Recommendation 11.2 Poverty stakeholders strongly urge greater budgetary allocations for rural pre-schools so as to improve facilities and pedagogical materials and close the private funding gap between urban and rural pre-schools.
46. Recommendation 11.3 Priority be given to the encouragement of higher pass rates in rural secondary schools so that adequate entry may be made to tertiary training institutions.
47. Recommendation 11.4 Thorough research be undertaken to identify the causes of the high drop-out rates in the poorest households, in both rural and urban areas.
48. Recommendation 11.5 Where the causes are identified to be related to financial hardship, budgetary provisions, such as fee subsidies and easy access to cheap loans, be made to ensure that schools are not forced to reject students not able to pay fees.
49. Recommendation 11.6 : Where the cause of high drop-out rates is failure at required examinations, then the causes of the poorer academic performance of the drop-outs be addressed, while failing students be give opportunity to repeat.
50. Recommendation 12.1: Stakeholders emphasize the importance of female gainful employment for money, as an important part of poverty reduction strategies.
51. Recommendation 12.2: The Fiji Bureau of Statistics make a special effort to obtain better information on under-employment from future HIES to ensure that poverty status is better related to the nature of employment of members of the household.
52. Recommendation 13.1 Poverty stakeholders identify the factors that currently determine the wall-types of new houses in order to better formulate housing policy for the poor.

Annex C Summary of Recommendations

53. Recommendation 13.2 Poverty stakeholders recommend that the appropriate government departments examine strategies for the greater use of local mahogany wood in the construction of houses for the poor, without sacrificing safety in cyclones and fire risks, and cost-effectiveness.
54. Recommendation 13.3 Poverty stakeholders request an inquiry into the following factors (or some combination of them) which may explain the apparent decline in the numbers of households with cars or trucks: reduced economic well-being, the high increases in the prices of cars/trucks and parts; increased stringency by the Land Transport Authority; the deteriorating state of the rural roads.
55. Recommendation 13.4 Based on the findings, the review recommend measures to encourage greater ownership of own transport, especially in rural areas. Measures could include reduced duty on car/truck parts, judicious relaxation of LTA regulations without compromising safety, and better road maintenance schedules and financial allocations.
56. Recommendation 13.5: Government investigate fiscal and import duty policies to encourage rural communities to obtain reliable electricity through alternative sources such as diesel generators and solar panels, where provision through national grids are not cost-effective. An extra special effort needs to be made for rural households in the Northern division.
57. Recommendation 13.6: Government investigate fiscal and import duty policies to encourage poor households to purchase basic washing machines which can reduce the burdens on women of manual washing of clothes.
58. Recommendation 13.7: Government investigate the extent to which households are using firewood for cooking on open fires, and reinvigorate the campaigns to encourage those households to acquire "smokeless stoves".
59. Recommendation 13.8 Government investigate the design of a cheap wood-stove which is durable and energy efficient and suitable for typical Fiji families and cooking requirements.
60. Recommendation 13.9 Poverty stakeholders urge all those in authority to mount a serious public education campaign to encourage the poorest households to prioritize the purchase of computers relative to other less necessary household assets.
61. Recommendation 13.10 Poverty stakeholders urge the Commerce Commission to act to further reduce Internet charges to rural households especially.

Annex C Summary of Recommendations

62. Recommendation 13.11 Poverty stakeholders urge all organizations with interests in IT literacy, to mount national education campaigns to alert the poorest households to the numerous educational, commercial, financial and entertainment benefits of the Internet.
63. Recommendation 13.12 Poverty stakeholders urge Government to investigate fiscal incentives to ensure that basic computers and ancillary equipment are sold at prices affordable by the poorest households.
64. Recommendation 13.13 Poverty stakeholders urge the authorities to instigate a public inquiry into all aspects of the use of mobile phones by children, including negative aspects of social interpersonal behavior among children, and misuse of pocket money originally intended for lunches and snacks.
65. Recommendation 13.14 Poverty stakeholders urge the authorities to instigate a public inquiry into the marketing campaigns by mobile phone companies to investigate whether it is resulting in excessive expenditure on unnecessary mobile phone usage.
66. Recommendation 13.15 Poverty stakeholders urge the authorities to instigate a public inquiry into the possibilities for encouraging mobile phone companies to initiate programs that enhance the use of mobile phones for education especially for children who do not have access to internet through computers.
67. Recommendation 13.16 Poverty stakeholders urge a public education campaign to encourage gender equality in the possession and use of mobiles.
68. Recommendation 13.17 Poverty stakeholders urge an inquiry into the excessive corporate use of mobile texting competitions which amount effectively to a "lottery" rather than a competition.
69. Recommendation 13.18 Poverty stakeholders call for a review of the factors leading to reduced ownership of outboard motors in rural areas.
70. Recommendation 13.19 If it is found that outboard engine prices are the determining factor, then financial incentives be examined with a view to encouraging greater ownership of outboard engines in order to encourage fishing for marine foods.
71. Recommendation 13.20 If it is found that access to fishing grounds is the limiting factor then the authorities examine options to improve access to fishing grounds.
72. Recommendation 13.21 Poverty stakeholders urge FBS to place greater emphasis in future HIES on obtaining more information on other household

Annex C Summary of Recommendations

durables that improve standards of living within households, such as microwaves and food processors.

73. Recommendation 13.22 Poverty stakeholders urge government to consider financial incentives for poverty stakeholders to install water tanks for the poorest rural households, where physically and economically feasible.

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